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THE HOPI INDIANS

By WALTER HOUGH
Curator Division of Ethnology, United States National Museum,
Washington, D. C.

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This is one of the best examples available of dewcriptive anthropology applied to a particular group. It is entertainingly written, and the author's long experience in the field is a guarantee of its accuracy.

Wash Ac. Sci [illegible].17

To My Wife

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MESA FOLK OF HOPILAND

PREFACE

Whoever visits the Hopi falls perforce under the magic influence of their life and personality. If anyone entertains the belief that "a good Indian is a dead Indian," let him travel to the heart of the Southwest and dispel his illusions in the presence of the sturdy, self-supporting, self-respecting citizens of the pueblos. Many sojourns in a region whose fascinations are second to no other, experiences that were happy and associations with a people who interest all coming in contact with them combined to indite the following pages. If the writer may seem biased in favor of the "Quaker Indians," as Lummis calls them, be it known that he is moved by affection not less than by respect for the Hopi and moreover believes that his commendations are worthily bestowed.

The recording of these sidelights on the Hopi far from being an irksome task has been a pleasure which it is hoped may be passed on to the reader, who may here receive an impression of a tribe of Indians living at the threshold of modern civilizing influences and still retaining in great measure the life of the ancient house-builders of the unwatered lands.

To Mr. F. W. Hodge of the Bureau of American

Ethnology of the Smithsonian Institution, a fellow worker in the Pueblo field, grateful acknowledgments are due for his criticism and advice in the preparation of this book. The frontispiece is by that distinguished amateur P. G. Gates of Pasadena. Under the auspices of the explorations carried on by Dr. J. Walter Fewkes, for the Bureau of American Ethnology, the writer had in 1896 his first introduction to the Hopi, a favor and a pleasure that will always be remembered with gratitude on his part. The indebtedness of science to the researches of Dr. Fewkes among the Hopi is very great and this book has profited by his inspiration as well as by his counsel.

I

THE COUNTRY, TOWNS, AND PEOPLES

The Hopi, or Peaceful People, as their name expresses, live in six rock-built towns perched on three mesas in northeastern Arizona. They number about 1,600 and speak a dialect of the language called the Shoshonean, the tongue of the Ute, Comanche, and other tribes in the United States. There is another town, called Hano, making up seven on these mesas, but its people are Tewas who came from the Rio Grande valley in New Mexico more than two centuries ago.

There are a number of ways of reaching the Hopi pueblos. If one would go in by the east, he may choose to start from Holbrook on the Santa Fé Pacific Railroad, or Winslow (two days each), or by the west from Canyon Diablo (two days), or Flagstaff (three days). The estimates of time are based on "traveling light" and with few interruptions. A longer journey may be made from Gallup, during which the Canyon de Chelly, with its wonderful cliff dwellings, may be visited if one has a sufficient outfit and plenty of time.

The home-land of the Hopi, known as Tusayan from old times, is a semi-desert, lying a mile and a quarter above sea-level. It is deeply scarred by canyons and plentifully studded with buttes and mesas, though there are vast stretches which seem level till one gets closer acquaintance. From the pueblos the view is open from the northwest to the southeast, and uninterrupted over the great basin of the Colorado Chiquito, or Little Colorado River, rimmed on the far horizon by the peaks of the San Francisco, Mogollon, and White Mountains, while in the other quarters broken mesas shut out the view.

The rainfall almost immediately sinking into the sandy wastes, determines that there shall be no perennially-flowing rivers in Tusayan, and that springs must be few and far between and the most valued of all possessions. Were it not for winter snows and summer thunder-storms, Tusayan would be a desert indeed.

The hardy grasses and desert plants do their best to cover the nakedness of the country; along the washes are a few cottonwoods; on the mesas are junipers and pinyons; and in the higher lands to the north small oaks strive for an existence. At times, when the rains are favoring, plants spring up and the desert is painted with great masses of color; here and there are stretches green with grass or yellow with the flowering bunches of the "rabbit brush" or gray with the ice plant. In sheltered spots many rare and beautiful flowers may be found.

The Hopi enjoy a summer climate the temperature of which is that of Maine and a winter climate that is far less severe than the latter, since most days are bright and the sun has power. Even in the warmest season the nights are cool, and an enjoyable coolness is found by day in the shade. The dryness of the region renders it ideal for healthful sleeping in the open air. A pure atmosphere like that of the sea bathes Tusayan; no microbes pollute it with their presence and it fills the body with good blood and an exhilaration like wine.

Perforce the Hopi are agricultural, and since there is little game to be hunted, they are also largely vegetarians, their chief food being corn. When the corn crop fails the desert plants are relied on to prevent starvation. The Hopi thus form a good example of a people whose very existence depends on the plants of the earth, and it speaks well for their skill as farmers, in so unfavorable an environment, that there are any of them living in Tusayan at this day.

Out of this environment the Hopi has shaped his religious beliefs, whose strenuous appeal is for food and life from the grasping destroyers of nature that whelm him. And in like manner he has drawn from this niggard stretch his house, his pottery, baskets, clothing and all the arts that show how man can rise above his environment. But let us have a closer view of this Indian who is so worthy of the respect of his superiors in culture.

The Hopi man is moderate of stature, well-framed, hard-muscled, and agile, since he depended on his own feet for going anywhere and on his arms for work before the day of the burro and the horse. Black, straight hair worn long, brownish skin, the smooth and expressive face in the young men, intensifying as they grow older, bringing out the high cheek-bones, the nose, the large mouth and accenting them with wrinkles, but never developing a sullen, ferocious cast of countenance, always preserving the lines of worth and dignity and the pleasing curves of humor and good-fellowship to the end of life, — these are the salient characters of the Hopi.

The same remarks apply to the other sex, who from childhood to old age run the course in milder degree. Many of the maidens are pretty and the matrons are comely and wholesome to behold. The old, wrinkled and bowed go their way with quiet mien and busy themselves with the light duties in which their experience counts for much.

In spite of the luxuriant hair that adorns the heads of this people, one may notice the difference of head shape which distinguishes them from the tribes of the plains. The cradle-board is partly responsible for this, since, from infancy, the children are bound to the cradle and obliged to lie on the back for longer or shorter intervals, and thus begins the flattening of the back of the skull. But the heads of the women are rarely flattened, probably because the girls are not so well cared for as the boys.

There are among the Hopi a greater number of albinos in proportion to the population than may be found almost anywhere else. They go about their avocations like the rest and are in no way regarded as different from their kin. The impulse is to address them in English, and one feels surprised when they do not comprehend. One albino maiden of Mishongnovi has a marvelous growth of golden hair which shows to great advantage in her ample hair whorls. Many students believe that albinism has its origin in the nervous system, and perhaps the timidity of the Hopi explains the number of these remarkable people in their midst; but this is a theory, based on a theory. It has been observed that some of the albinos are below the average in intelligence, and it has been ascertained that the larger proportion of them are second in order of birth in a family.

From the number of old people in the pueblos one would gain the impression that the Hopi are long-lived. All things considered, this is doubtless the truth, but there are no statistics to settle the matter; besides, the question of age is a doubtful one among the Hopi themselves. If "sans everything" is any criterion of a centenarian, there are such among the Peaceful People. One must conclude that, on passing childhood, the average Hopi is due for a second term of the helpless period.

"Welcome" is not written over every Hopi door, but the spirit of hospitality pervades the entire population. This is one of the pleasant features of the Pueblos and is the chief reason why the Hopi are held in friendly remembrance by visitors. An acquaintance with the Indians in the different pueblos of the Southwest will convince one that there is a considerable range of disposition among them. Perhaps the extremes are the untractable Santo Domingans and the impressionable Hopi. It seems to be a matter of the elements of which the tribes have been made up and of their past experiences and associations.

High up on the gray rocks the Hopi towns look as though they were part of the native cliff. The seven towns, — though twenty miles and three distinct mesas separate the extremes, — Hano and Oraibi, — are built on the same stratum of sandstone. The rock shows tints of light red, yellow, and brown, and cleaves into great cubical pillars and blocks, leaving the face of the cliff always vertical. Trails at different points lead up over the low masses of talus and reach the flat top through crevices and breaks in this rock-wall, often over surfaces where pockets have been cut in the stone for hand and foot. A very little powder, properly applied, would render these mesas as difficult of ascent as the Enchanted Mesa near Acoma.

Once on top and breathing normally after the four hundred feet or so of precipitous climbing, one sees why the outer walls of the towns seem to be a continuation of the living rock. The houses are built of slabs of stone of various sizes, quarried from the mesa and laid up in mud. They are of terrace style, rarely more than of two stories, flat-roofed, and grouped in masses so as to form streets and plazas and conforming to the irregularities of the surface and outline of the mesas. For this reason not much order can be found in a Hopi pueblo. The uneven surface of the mesas gives a varying height to the houses and increases the picturesqueness of the skyline.

These Hopi towns are the most primitive of the inhabited pueblos. Before us is a picture of the ancient life as true as may be found in this day of inquisitive travelers and of rapid transportation to the ends of the earth. But this state of things is changing with increasing rapidity; the Hopi is becoming progressive and yearns for the things of the white man with increasing desire, therefore it is evident that, before many years, much that is charming in Tusayan by reason of the ancient touch about it will have vanished from the lives of its brown inhabitants.

This change is most marked at Walpi, because the East Mesa people have longest been in contact with the civilizing influences of schools, missions, and trading posts; besides, they were always apparently the most tractable of the Hopi. Many families have abandoned the villages on the cliffs, and their modern, red-roofed houses dotting the lower ground near the fields show the tendency to forsake the crowded hill-towns. But the old towns exist in all their primitiveness and furnish bits of surpassing interest to lovers of the picturesque. To these the bulk of the conservative Hopi still cling with all the force of their inherited instinct.

Two centuries ago visitors arrived at Walpi from the Rio Grande. These were a tribe of Tewa, invited to come to Tusayan to aid in fighting off the Apache and Ute, those wily nomad adversaries with whom the Peaceful People for so long had to contend. Here they have lived ever since in their village of Hano, at the head of the most readily accessible trail up the mesa, preserving their language and customs, and besides their own tongue, speaking well the language of their friends and neighbors. The Tewa brought with them their potter's art and now have the honor to be practically the only makers of earthenware in Tusayan. Nampeo is the best potter at Hano and her work shows her to be a worthy descendant of the ancient artists, whose graceful vessels lie with the bones of the dead beneath the sands of the great Southwest.

Beyond Hano, and midway between it and Walpi, is Sichomovi, which signifies "flower mound." Sichomovi, if we may judge from the good preservation of its houses and the regularity with which the town is laid out, seems to be comparatively new, and indeed, there is traditionary testimony to this effect. The dusky historians of Walpi relate the circumstances of its foundation, when the yellow flowers grew in the crevices of the rock at the place where several stranger clans were allowed to settle.

Passing out of Sichomovi and crossing a narrow neck of the mesa traversed by a well-worn trail, Walpi is reached. This village from different points of view presents the appearance of a confused jumble of dilapidated houses, and a walk through its alleys and passages confirms the impression. Walpi was a town of necessity and was erected in 1590, having been moved up from a lower point after troubles with the Spanish conquistadores.

Looking down from the town one may trace the site of Old Walpi and descry the pottery-strewn mounds of still older settlements, since around this mesa the first comers to Tusayan probably located. At the foot of the mesa are also springs and shrines, one of the latter being the true "center of the world" to the Hopi mind, a point which gave the ancients much trouble to determine. Along the ledges are corrals for the motley flocks of black and white sheep and goats, adepts in subsisting on all sorts of unpalatable brush. Farther down in the level are the fields, at the proper season green with the prospect of corn, melons, and beans.

Walpi streets are the living rock of the mesa worn smooth by human feet and swept by the officious wind-god, whose dry air, with the aid of the sun, form the board of health of the Hopiland. This rocky surface must have been a great trial to the *kiva* builders, as traditional custom requires that such meeting places of the secret societies or brotherhoods should be underground. The *kivas* along the streets thus represent a great amount of work in their construction, and it is clear that, when the builders found a cleft in the rock or a niche in the cliff-edge, they appropriated it as the site of a *kiva*, then built an outer wall overhanging the precipice and prepared the deep oblong room with toilsome labor, for they had only the rude tools of the stone age.

The two poles of the ladder project from the *kiva* hatchway, and one may descend if no ceremony is on hand. There is not much to see except an empty, smoke-blackened room with stone-paved floor, plastered walls, and ceiling crossed by heavy beams. Just in front of the ladder is a fireplace, consisting of a stone box sunk in the floor, and the portion of the room back of the ladder is elevated. These subterranean chambers are now found in use only in Tusayan, where this manner of building them, along with many other ancient customs, has been preserved by the Hopi through many generations.

Hopi houses are small, and as in the other pueblos of the Southwest, the first families live in the second story, which is reached by a ladder. In recent times, though, the ground floor, which formerly was used chiefly for storage, has been cleaned out, furnished with doors, and occupied as habitations. Steps on the dividing walls lead to the upper story and the roof forms a general loitering-place. The living room is kept in good order, and a goodly array of blankets, harness, and clothes hanging from a swinging pole are looked on with pride and complacency. In the granary, which is generally a back room, the ears of corn are often sorted by color and laid up in neat walls and one year's crop is always kept in reserve for a bad season. Red corn, yellow corn, white corn, blue corn, black corn, and mottled corn make a Hopi grain room a study in color. Three oblong hollowed stones or metates of graded fineness are sunk in the floor of every Hopi house, and on these, with another stone held in the hands, the corn is ground to fine meal, the grinders singing shrill songs at their back-breaking work.

In the corner of the baking-room is a fireplace covered with a smoke hood and containing slabs of stone for the baking of *piki*, or paper bread, while scattered about are many baskets, jars, bowls, cups, and other utensils of pottery well fitted for the purposes of the Hopi culinary art. Outside the house is a sunken pit in which corn-pudding is baked.

These and many other things about the Hopi villages will interest the visitor, who will not have serious difficulty in overlooking the innovations or in obtaining a clear idea of Pueblo life as it was in the times long past.

If one crosses the plain to the three villages of the Middle Mesa, he will find still less of the effect of contact with modern things. Mushongnovi, the second town of Tusayan in point of size, presented as late as 1906 a perfect picture of an unmodified pueblo on its giant mesa, the eastern and northern walls of the town blank and high like the face of a cliff. Within this closely-built village the terraced houses face the streets and open plazas, after the ancient fashion. Because of their harmony with their primitive surroundings, one hesitates to believe in the modernness of the chimneys of these pueblos, yet it appears to be true that the idea is of Spanish introduction.

Shipaulovi, on its high vantage point, seems newer than Shumopavi, its neighbor, the latter being the most regular pueblo in Tusayan. Some fifteen miles beyond Shumopavi is Oraibi, the largest of the seven Hopi towns, whose rough walls give it an appearance of great age. Oraibi held out longest against the white intruders, and even now would much prefer to be left alone in the enjoyment of its accustomed ways, but the school-houses and the red roofs brought by the white man increasingly menace its old-world notions.

The nearest neighbors of the Hopi are the Navaho, that large and rapidly growing tribe who are what they call themselves, *Dene*, "men." They crowd upon the Hopi, and when the opportunity offers "raise" some stock or dictate with sublime egotism the conduct of the ceremonies. Several hundred years of contact with the pueblo folk have made the once uncultured Navaho in many respects like them. The timid Hopi do not choose to affiliate with the Navaho, but marriages are not infrequent among members of the two tribes. Generally it is a Navaho brave who seeks a

Hopi maiden to wife, coming to live with her people, but rarely does a Hopi youth lead a "Teshab" girl to his hearth as did Anowita of Walpi.

A few Zuñi have cast their lot at Tusayan and several of the latter live at Zuñi and in some of the Rio Grande pueblos. Not many years ago, a Hopi was chief of an important fraternity at Sia, a pueblo on the Jemez River in New Mexico. The Zuñi are quite neighborly and visit Tusayan to witness the ceremonies or to exchange necklaces of shell and turquoise beads for blankets. Tradition has it that some of the clans from the Rio Grande came by way of Zuñi and that Sichomovi has a strong admixture from that pueblo. In support of this it may be said that the Zuñi visitors are usually domiciled at Sichomovi, where they seem very much at home, and many of the people there speak the Zuñi language.

At the time of the ceremonies, especially those performed in summer, Tewa from the Rio Grande pueblos come to visit and trade and enjoy the merrymaking that attends the dances. Some of the people of Hano have visited their relatives on the Rio Grande, but few of the Hopi are so far-traveled in these days. There has been for centuries, however, more or less communication across the vast stretch of arid country lying between the Great River and Tusayan, and in a number of instances in the distant past, whole tribes have emigrated from the east to the Hopi country where they have founded new towns. Although 100 miles away, the Havasupai may also be regarded as near neighbors who cross the desert to sell their fine baskets and superior white-tanned deerskins, for which articles there is great demand. The Hopi also traverse the sandy waste to visit the "People of the Ladders," as they call the Havasupai, and bring back sacred red ocher and green copper stone for pigments. The Havasupai and Hopi are likewise linked by traditions of an ancient time.

Long ago, say the Hopi, the Paiute, who are uncultured but strong in the art of warfare, came down from the north and harassed them until the people of Hano vanquished them. The Paiute, although remotely related, were not friendly to the Hopi, and besides, there was much of value to be seized from the mesa-dwellers. For this reason the Hopi did not cultivate the friendship with the Paiute and the only one of that tribe living in Tusayan is "Tom Sawyer," whose portrait is drawn in another place.

Nor were the Apache more desirable neighbors. The Hopi tell of the troublous times when these nomads came from the south and compelled them to draw up their ladders from the cliff at night. Still, Paiute and Apache baskets and other aboriginal manufactures found their way to the pueblos, who were always cosmopolitan in their tastes and did not allow tribal enmity to interfere with trade.

Far to the south another people were friends of the Hopi. Very long ago the Pima were closer neighbors and allies of some of the Hopi clans, who touched them in their wide migrations, which brought them to the "Palatkwabi." This is the Red Land of the south, lying on the Verde River and its tributaries. The Hopi lay claim to the Tonto Basin in southern Arizona, which has been thought to be their ancient country since far and wide over this southern region is found the yellow pottery so characteristic of the golden age of the Hopi. Sometimes still the Hopi visit the Pima, and it is known that formerly they joined in a fair that was held in the Pima country and brought back various commodities in exchange for their own products. Even today agave sweetmeats and alder bark, the latter used for dyeing leather, are found in Hopi dwellings, having been brought from beyond "Apache House," as they call the region south of the San Francisco Mountains where the Apache formerly lived.

II

SOCIAL LIFE

When the crops are harvested and Indian summer is gone and the cold winds buffet the mesas, the Hopi find comfort in their substantial houses around their hearth-stones. The change of the season enforces a pleasant reunion and the people who were occupied with the care as well as the delights of outdoor summer life, begin to get acquainted again.

The men have plenty of idle time on their hands,— the masks need repairing and refurbishing with new colors; there are always moccasins to be made; the carvers of dolls construct these odd painted figures from cottonwood procured during the summer, and the weaver works at his loom. Now the basket maker draws on her stock of split yucca leaves, twigs and grass, but the potter's craft is in abeyance till the warm months.

One would think that the winter work falls pretty severely on the women, but their duties are largely the same in all seasons. There is corn to be ground, food to be prepared, and water to be carried up the steep trails. The winter store must be guarded against mice and vermin and occasionally sunned on the roof. There are, no doubt, many cares and much labor, but the women take their time and everyone, from the little child to the experienced old grandmother, lends a helping hand. A Hopi woman would perhaps not understand our kind commiseration for the lot that her sex has experienced and thriven under from time immemorial.

Winter in Tusayan is more enjoyable than otherwise, as the sun is bright and the sky a clear blue. The snows of winter are nearly as rare as the rainstorms of summer, much to the regret of the Hopi. Often the cold at night is intense, but the day may have the crisp though mild air of a rare day in spring at the East.

Not much change comes over the landscape of Tusayan by the advent of winter. There are few trees to lose their leaves after a gorgeous pageant of farewell. The desert plants scarcely ever alter the appearance of the earth by their leaf tints of spring, summer, or autumn; with their diminutive leaves and sober color they sink into the vast surface and are lost among the vivid aerial tints and the bright hues of the rocks and plains. There are no rivers to be covered by a sheen of ice, and rarely does a mantle of snow reach across the deserts from the snow-clad mountains. The winds rave and whirlwinds swirl the sand along the plain in giant columns, while the sun hangs lower and lower in the southwest until the Hopi fear that he will finally depart and leave them in the grasp of winter. But the priests have potent charms to draw him back, and after the Soyalana ceremony at the winter solstice anyone can see that the sun no longer wanders.

Those Hopi who have not laid in a supply of fuel must go wood-gathering right speedily when cold weather approaches, for the trees are distant and the day is hardly long enough to get a burro load piled on the house wall. Every morning also the flocks of sheep and goats must be driven out from the corrals on the ledges under the mesas, to browse on the leafless brush.

October is called the Harvest moon. The women who garner the grain hold a ceremony at this time and great is the feasting and rejoicing in the pueblo. The winter tightens in November, called the "Neophyte moon," since the youths of proper age are initiated into the societies in this month. These beginners bear the sportive name of "Pigeon Hawks." In even years comes the great ceremony of the New Fire, full of strange rites of fire worship handed down from the olden time. In odd years occurs the Na-a-ish-nya ceremony, which like the other is performed by the New Fire Society. By December, Tusayan is hard in the grip of winter, and as the spirits are held fast beneath the frozen ground, they cannot do ill to anyone who speaks about them, so that many legends and stories and much sacred lore are freely divulged around the glowing fires of fat piñon wood in the Hopi houses. Everyone is also on the qui vive for the Soyaluna, in many respects the most important ceremony in the Hopi calendar, when the first kachinas appear. December is called the "Hoe moon" because in this month it is prescribed that the fields shall be cleared for the spring planting. The wind has perhaps done its share toward clearing movable things from the fields, but much remains to be done in leveling the surface for the spring sowing.

No month of winter is too cold for a ceremony. January, called the "Prayer-stick moon," brings the Alosaka, a ceremony of the Horn Society with their grotesque masks. During the vicissitudes of this hard month, more of the beloved kachinas return to their people from the high peaks of the San Francisco Mountains, poetically known as the "snow houses," and to these ancestral beings many petitions are made.

February, the hardest month of all the winter, is called the "Getting-ready moon." It was in this month that the hero of the Kachina people found melons and green corn near the San Francisco Mountains. The Powamu ceremony is held during this moon.

If the Hopi should have nearly reached the starvation point, March is likely to inspire a hope of reaching the end of the disastrous season, for in sheltered places a few shoots of green appear, and if the moisture from melting snow is sufficient, perhaps the little *wiwa* plant springs up, furnishing palatable and nourishing greens. For some reason March is called the "Prickly-pear moon," and it is the only month named from a natural object. Perhaps the designation points to a time when some of the Hopi lived in a clime where the prickly-pear bloomed in March. This might have been in southern Arizona, whence a number of clans, for instance, such as the "Agave People," have derived their names. March ushers in the most disagreeable part of the year, the season of fierce winds charged with dust and sand which drift like snow against the sides of the mesas.

This chronicle of the winter of the Hopi, incomplete as it is, shows that the "Peaceful People" get a great deal of enjoyment out of life at this season. Many important ceremonies belong to the wintertime and there are conventions of the different societies. In the underground meeting-places those entitled to the privileges drop in for gossip, as at a club, being sure of warmth, agreeable company, and perhaps a smoke to while away the time. Around the fireside, also, there is a good company, and plenty of stories, well worth the hearing, are told. The men may go hunting or make a winter journey to the settlements or the mountains.

As for the cold, the Hopi seem to regard it lightly. There is little or no change in the costume, though the blanket or the rabbit-fur robe comes in handy for a wrap. If a man has an errand out of doors he trusts to running to keep up the circulation. After the ceremonies, the men usually ascend, scantily clothed, from the superheated *kivas* into the bitter air, with utter disregard for the rules of health. The purity of the air is a saving factor; nevertheless, pulmonary diseases are common, due to the close, badly ventilated houses more than to any other causes.

Most visitors to Tusayan see the Hopiland at the best season, when the cornfields are green and the cottonwoods are in full leaf, when the desert smiles to its greatest capability and the people are well fed and happy. The rebirth of Nature begins in April, when the thrifty farmers cut brush and set up long windbreaks to protect prospective crops. The month is named for this circumstance, and like everything else at the pueblos the time for beginning work is prescribed, according to custom, by those in authority over the clans.

Frosts and lashing winds often destroy every green shoot in the spring, save the native plants, which are inured to the weather, and the people frequently have to mourn the loss of their peaches, their only desirable fruit, for which they owe a debt to the Spanish friars of long ago.

In the "Waiting moon," as May is called, all is activity in the fields, for the planting of the sweet corn goes merrily on and the Hopi become, for most of the time, an out-door people. The winds perhaps have abated their power or have ceased entirely, and life is more pleasant under the warm sun. Still, with all the work incident to the care of the fields there is time for ceremony and during the period between the arrival of the kachinas in December and their departure in July, there are many minor celebrations by masked dancers in addition to the great monthly ceremonies. Especially interesting in the season of awakening life anl growing crops are these kachina dances with their pleasing songs and pageantry, their unlimited variety and surprises. The "Peaceful People" enjoy this season in the highest degree. June and July see every Hopi happy, unless there is something constitutionally wrong with him or he is afflicted with sickness. It is difficult to realize how thoroughly all Hopi life is linked with growing things, showing out in their every word and action and entering into their ideas of the unseen world.

When the sun pauses in his march along the eastern horizon at the summer solstice, the Hopi spend the day in making feather prayer-plumes as petitions for blessings. These children of the sun know the course of *Dawa*, the sun, and read his positions as we the hands of a clock.

With the departure of the kachinas a new class of ceremonies begins. The dancers who previously appeared in strange masks and headgear now perform unmasked, and the cumbrous paraphernalia is laid away for another year. The great event of the summer, the Snake Dance, is now at hand, and everyone sets about preparing for a good time. In the latter part of August, after this ceremony, the pueblo resumes its normal state and the people settle down to the feast of good things from their fields, which they attack with primitive zest and enjoyment. It is greatly to the credit of the Hopi that they work well and rest well like the unconscious philosophers they are.

The moon of September watches over a scene of peace and plenty in Tusayan. The cool, clear nights betoken that frosts and the time of harvest are approaching. The heat of summer is gone and the season is ideal.

Since the Hopi are good people one would infer that they need no rulers. One might live among the Hopi for some time and not wittingly come in contact with a chief or a policeman or any evidence of laws, but the rulers and laws are there nevertheless.

The voice of the town crier awakens one to the fact that here is the striking apparatus of some sort of a social clock. It will be found that there is an organization of which the crier is the ultimate utterance. Chiefs are there in abundance, the house chief, the kiva chief, the war chief, the speaker chief who is the crier; chiefs of clans, who are chiefs of the fraternities: all these are members of the council that rules the pueblo. The council meets on occasion and acts for the common weal, and the village chief publishes their mandates by crier.

In this most democratic organization the agents of the Government who wish to treat with the Hopi, not finding a responsible head, felt forced to appoint one. Thus each Hopi pueblo received a supreme ruler, who neither deceived himself nor the people as to the power he acquired from Washington, which was nil. The true rulers are the heads of the clans, and by their wise advice and their knowledge of the traditional unwritten laws everything is regulated for the tractable Hopi. Each pueblo acts for itself and knows nothing and cares less for the doings of the other pueblos, so there has never been a league of Hopi tribes. In a few instances there was a temporary unity of action, as when the people of other pueblos destroyed Awatobi, an event related circumstantially in the tradition. (See p. 210.) Traces of this independence of action abound in the Southwest. The ancient ruins show that the clans built each its house cluster apart from the others and moved when it liked. The present villages are made up of clans and fragments of clans, each living in the ward where it settled when it joined the others in the old time.

These clans are larger families of blood relations, who trace their descent from the mother and who have a general family name or totem, as Eagle, Tobacco Plant, Cloud, etc. Although no blood relationship may be traceable between them, no youth and maid of the same clan may marry, and this seems to be the first law of the clan. The working of the strange law of mother-right makes the children of no clan relation to the father. Since the woman owns the house and the children, the father is only a sojourner in the clan of his wife.

Another law of the greater family was that of mutual help, providing for the weak, infirm, and unprotected members. From this grows the hospitality of the Indian, and nowhere does this graceful custom prevail more than among the Hopi.

As if in recognition of the interests of the whole people in the farming lands, the messengers sent out to bear plume-prayers to the nature gods while the ceremonies are in progress encircle all the fields of the pueblo, so that all may receive the blessings of rain. While the lands are spoken of as belonging to the village, they are known to have been immemorially divided among the clans, hence at Walpi the oldest and otherwise ranking clans have the best land. The division of the land in severalty by the United States government some years ago had no effect on the ancient boundaries and no one but the surveyor knows where his lines ran.

Every once in a while the Hopi have a "raising," but instead of the kind and willing neighbors of the "bee" in the States, here the workers are clan relations. Coöperation or communal effort goes a long way toward explaining why the days of the Pueblo dweller are long in the land and the Mormon settlers in the Southwest also followed this primitive law which goes into effect wherever men are gathered for the common weal.

Laws are but expressions of common sense formulated by the wisest and most experienced. The Hopi must have good laws, for though their laws are stronger by far than those written and refined by civilization, the people observe them unconsciously and never feel the burden. There are so few infractions of the law that it is difficult to say what the various punishments are. The taking of life by force or law is unknown; the respect of mine and thine is the rule among the Hopi, and so on through the temptations of life that beset mortals. There is no desire to place the Hopi on a pedestal and declare them perfect, for they are not; but in many ways they set their civilized brothers an example. As to punishment, it is probable that a loss of standing in a fraternity, ostracism from the clan or pueblo, and ridicule are the suasive penalties.

With the increased influence of education and contact with white people the business side of the Hopi is being brought out, and because from time immemorial they have been chief among the traffickers in the primitive commerce of the Southwest, they have rapidly assimilated the devices of modern trade. They have their own native merchants and are gradually becoming independent of the trader. The latter say they would rather deal with six Navaho than one Hopi, because the Navaho does not haggle, while the Hopi, with the thrift that is bringing him to the front, is determined to get the benefit of a bargain.

The Pueblo folk retire early and leave the safety of the village to the patrol. Some one is always on guard about the pueblo, whether it be the children amusing themselves on the rocks, — and these little folks have eyes as sharp as any, — or the grown people looking off into the country for "signs," a custom which has become habitual with them. The night patrol is a survival of the times when the whole village was a committee of safety, for the outside foes were fierce and treacherous.

If running about the town keeping the dogs barking and good folks awake is the principal office of the patrol, then it is eminently successful and the pueblos furnish nocturnal noises on the scale of the cities of civilization. The tradition of the coming of the Flute clan speaks of the watchman of Walpi, who was Alosaka, a horned being alert as a mountain sheep. The Flute migrants also sent out "Mountain Sheep" to ascertain whether human beings lived in the locality. During some of the ceremonies there are vigilant patrols, and on a few ceremonial days no living being is allowed to come into the pueblo from the outside, formerly under pain of death at the hands of the fraternity guards. It is thought that the trouble arising between the Spaniards and the Hopi on that first visit to Tusayan in 1540 was due to a violation of the ceremonial bar, and not to the belligerent habit of the Indians.

The village shepherds have an easy, though very monotonous occupation. They have the advantage of other Arizona shepherds because their charges are brought at nightfall into secure corrals among the rocks below the town and do not require care till morning. Frequently one sees a woman and a child driving the herd around, in what seems a vain search for green things that a sheep with a not too fastidious appetite might eat. Formerly, at least, the office of herder was bestowed by the village chief, much as was once the case with the village swineherd or gooseherd of Europe in olden time.

Perhaps a visitor straying about a Hopi village at a time when there are no ceremonies in progress may find a quaint street market, conducted by a few women squatted on the ground, with their wares spread in front of them. Such markets are only a faint reflection of those which have been held in Mexico from time immemorial; but it is interesting to know that the Hopi have such an institution, because it shows a step in political economy that has been rarely noticed among the Indians in the United States. The little barter by exchange that goes on here, accompanied with the jollity of the Hopi women, has in it the germ of commerce with its world-embracing activities. Here it is found also that woman has her place as the beginner and promoter of buying and selling as she has in the inception of many other lines of human progress.

Honi, the speaker-chief, is the living newspaper of

Walpi, or rather he is a vocal bulletin-board. Like the reader for the United States Senate, his voice is of the robust kind, and for this qualification, perhaps, he was selected to make the numerous announcements from the housetops. His news is principally of a religious character, such as the beginning and progress of the many ceremonies at the pueblo, but there is a fair sprinkling of secular notices of interest to the community. Honi, however, is only a voice crying in the wilderness at the bidding of the secret council or of the heads of the brotherhoods who are the true rulers of the pueblos, because they have the destiny of the flock in their hands. He holds, however, the office of speaker-chief, the pay of which is not highly remunerative, but the duties do not interfere with the pursuit of other occupations, since his announcements are made usually when the people have gathered in the town after their day's labor in the fields. No doubt, Honi regards himself and is regarded by others as an important functionary who, with the house chief, has the privilege of frequenting the Mong-kiva or council chamber of the pueblo. The town crier's announcements attracted the notice of the Spanish conquerors in the early days as they have that of modern travelers. In the quaint language of Castañeda, speaking of Zuñi: "They have priests who preach to them whom they call papas. These are the elders. They go up on the highest roof of the village and preach to the village from there, like public criers in the morning while the sun is rising, the whole village being silent and sitting in the galleries to listen. They tell them how to live, and I believe that they give certain commandments for them to keep."

It must be admitted that Honi's is an ancient and honorable office, found useful by civilized communities before the time of newspapers and surviving yet, as the *sereno* of Spain.

It is surprising, by the way, how fast news flies in Hopiland. The arrival of a white man is known the whole length and breadth of Tusayan in an incredibly short time. A fondness for small talk, together with the dearth of news, make it incumbent upon every Hopi, when anything happens, to pass the word along.

To a visitor encamped below the Walpi mesa the novelty of hearing the speaker-chief for the first time is a thing long to be remembered. Out of the darkness and indescribable silence of the desert comes a voice, and such a voice! From the heights above it seems to come out of space and to be audible for an infinite distance. It takes the form of a chant, long drawn and full of sonorous quality. Everyone listens breathlessly to the important message, and when the crier finishes after the third repetition, an Indian informs us that the substance of the announcement was that the wire which "Washington" had promised to send had come and that in two days the villages would go out to build fences.

That Honi's messages are worth hearing is witnessed by the following announcement of the New Fire ceremony. Honi, standing on the housetop at sun-up, intones:

All people awake, open your eyes, arise,
Become children of light, vigorous, active, sprightly;
Hasten, Clouds, from the four world-quarters.
Come, Snow, in plenty, that water may abound when summer appears.
Come, Ice, and cover the fields that after planting, they may yield abundantly.
Let all hearts be glad.
The Wuwutchimtu will assemble in four days.
They will encircle the villages, dancing and singing.
Let the women be ready to pour water upon them
That moisture may come in plenty and all shall rejoice.

This is a good example of the poetry of the Hopi which, in the kachina songs, is of no low degree of artistic expression.

The Hopi use the world for a dial and the sun for the clock-hand. The sun-priest from his observatory on a point of the mesa watches the luminary as carefully as any astronomer. He determines the time for the beginning of each ceremony or important event in the life of the pueblo, such as corn planting, by the rising or setting of the sun behind a certain peak or notch in the marvelous mountain profile on the eastern and western horizons. These profiles are known to him as we know the figures on a watch face. Along them he notes the march of the seasons, and at the proper time the town-crier chants his announcement from the house-tops.

The clear air of Tusayan renders the task of the sun-priest easy; this primitive astronomer has the best of skies for observation. By day the San Francisco peaks, a hundred miles away, stand clearly silhouetted on the horizon; by night the stars are so brilliant that one can distinguish objects by their light.

The Hopi also know much of astronomy, and not only do they have names for the planets and particular stars, but are familiar with many constellations, the Pleiades especially being venerated, as among many primitive peoples. The rising and position of the Pleiades determine the time of some important ceremonies when the "sweet influences" reign. Any fixed star may be used to mark off a period of time by position and progress in the heavens as the sun is used by day. The moon determines the months, but there is no word for "year" or for the longer periods of time. Days are marked by "sleeps," thus today is *pui* or "now"; the days of the week are two sleeps, three sleeps, etc.; *tabuco* is "yesterday."

While the larger periods of time are kept with accuracy, so that the time of beginning the ceremonies varies but little from year to year, the Hopi have poor memories for dates. No one knows his age, and many of these villages seem to live within the shifting horizons of yesterday and tomorrow. The priests, however, keep a record of the ceremonies by adding to their *tiponi*, or palladium of their society, a feather for each celebration. At Zuñi a record of the death of priests of the war society is kept by making scratches on the face of a large rock near a shrine, and by this method a Hopi woman keeps count of the days from the child's birth to the natal ceremony. Ask a Hopi when some event happened, and he will say, "*Pai he sat o*," meaning "some time ago, when my father was a boy"; stress on the word means a longer time, and if the event was long beyond the memory of man, the Indian will almost shake his head off with emphasis.

The only notched time-stick is that jealously guarded by the sun priest, and no one knows just how he makes his calculations from it.

As for dinner time, the great sun and "the clock inside" attend to that; *dawa yamu*, *dawa nashab*, and *dawa poki* stand for "sunrise," "noonday," and "sunset." If the Hopi makes an appointment for a special hour, he points to where the sun will be at that time. The seasons are known to him in a general way as the time of the cold or snow, the coming back of the sun (winter solstice), the time of bean or corn planting, the time of green corn, the time of harvest, etc., but there is a calendar marked by the ceremonies held during each month.

Perhaps these children of the sun are happier in not being slaves of the second as we have become. Our watches, which they call *dawa*, "the sun," have not bound them to the wheel by whose turning we seem to advance. They are satisfied with the grander procession of the heavenly bodies, and their days fade into happy forgetfulness.

An experience of several years ago may here be related in order to show how the clan name of a Hopi is a veritable part of himself and also links him to his clan and the most intimate religious and secular life of the pueblo.

There was a jolly crowd of Hopi under the dense shade of a cottonwood on the Little Colorado River one hot day in July. The mound of earth, strewn with chips of flint and potsherds like a buried city on the Euphrates, had yielded its secrets, and the house walls of the ancient town of Homolobi resembled a huge honeycomb on the bluff.

The Hopi, who had worked like Trojans in laying bare the habitations of their presumptive ancestors, were now assembled to receive their wages in silver dollars, which they expressively call "little white cakes." Around were scattered the various belongings of an Indian camp, among which tin cans were prominent; a wind-break had been constructed of cottonwood boughs; from the tree hung the shells of turtles caught in the river; a quantity of wild tobacco was spread out to dry in the sun, and several crop-eared burros hobbling about on three legs were enjoying an unusually luxuriant pasture of sagebrush.

"Paying off" is surrounded with attractions for all sorts and conditions of men. The Hopi seemed like a lot of children anticipating a holiday, as they sat in a circle around Dr. Fewkes, who was paymaster. This was their first experience, perhaps, with Government "red tape," of whose intricacies they must have had but the faintest idea. There are times when blissful ignorance is to be envied.

The "sub-vouchers" were filled out with the time of service and the amount to be paid, and as the doctor's clerk called out the names, the boys came forward to sign. An Indian sign his name! Curiously enough, every Hopi from the least to the greatest can sign his name, and he does not have to resort to the "X-mark" of our boasted civilization.

Perhaps it would be better to say "draws his name," for when the first Indian grasped the pen in the most unfamiliar way imaginable, he drew the picture of a rabbit, the next drew a tobacco plant, the third a lizard, and so on, until the strangest collection of signatures that ever graced a Government voucher-book was completed.

It must be explained that each Hopi has an everyday name which his fond relatives devised for him during infancy, and a clan name, which shows his blood relationship or family. Nowhere, even in these days of ancestor hunting, is more importance given to family than in Hopiland. If you ask, "Who is this man?" the answer may be, for instance, "Kopeli," his individual name. "But what is he in Walpi?" "He is a *chua*," that is, he belongs to the important Snake clan and his totem signature is a crawling reptile.

It affords great amusement to the Hopi when a person, not acquainted with their customs, asks a man his name; it is also very embarrassing to the man asked, unless there is a third party at hand to volunteer the service, because no Hopi can be prevailed on to speak his own name for fear of the bad consequences following "giving himself away."

III

FOOD AND REARING

Indian legend tells of a time when all was water; then land was made; for a long time the earth was too wet for human beings and at last the earth was dried out by a mighty fire. All these are pretty stories for those who are looking for deluge legends and the effects of blazing comets, but if the Indian account is true, the drying process was carried entirely too far in the Southwest. Water! water! water! The word gains a new significance in this arid region. There is a rippling, cooling, refreshing note in it, a soothing of parched lips and a guaranty against death from thirst. So, all conversation among the people is replete with references to this mainstay of life, and one comes, like them, to discuss the water question with an earnest regard for its problems.

Wherever there is water, almost always will there be found ancient ruins. In modern times the windmill of the settler often stands by the spring which quenched the thirst of the ancient inhabitants of a now crumbling pueblo. The blessings which were invoked in Biblical times upon the man who "digged a well" apply also in this semi-desert, for Syria and Arizona do not differ greatly in climate. The Bedouin with his horses and camels would not be out of place on the sand wastes of our Sahara; nor were the Spanish conquerors on unfamiliar ground when they exchanged the dusty plains and naked sierras of their native land for those of the New World.

The traveler in Spain, northern Africa, or Asia Minor is impressed with the similarity between these countries and our Southwest, so that the name of New Spain, early applied by the Spaniards to all of Mexico, seems very appropriate. Like these countries, too, our Southwest is a land of thirst; the dry air and fervent sun parch the skin and devour every trace of moisture. (One feels as though he were placed under a bell glass exhausted of air undergoing the shriveling process of the apple in the experiment.)

So, before taking a journey, one inquires not so much of the roads and distances, but whether water may be found, for it is often necessary to submit to that most unpleasant of contingencies, a "dry camp." Many parts of Arizona and New Mexico cannot easily be visited except in favorable seasons, because one is told, "it's a hundred miles to water." The Hopi often provide for the long journeys across waterless country by hiding water at points along the route. This wise precaution, which was noticed by the Spanish explorers of the sixteenth century, consists of burying sealed water-jars in the sand, their situation being indicated by "signs." Far from the ancient or modern habitation these jars, uncovered by the wind, are often discovered by riders on the cattle ranges.

Not only must the dusty explorer "haul water," for even the railroads across the semi-desert are provided with tank trains for water service, and the water tanks of the huge locomotive tenders of all trains are of unusual capacity.

Far out on the sandy, sage-brush plains are frequently seen small cairns of stones, called by the knowing ones "Indian water signs," pointing out the direction of water, but the more common signs are the trails made by cattle on which a myriad of tracks in the dust point to water, miles away perhaps, and oftentimes, when the tracks are not fresh, leading to a dried-up pool, surrounded by carcasses or bleaching bones.

The Navaho herdsman or herdswoman is a person with great responsibility, for the sheep and ponies must have water at least every three or four days. When a well-defined thunder-storm passes within twenty or thirty miles of his camp he starts for the path of its influence, knowing that there will be pools of water and quick-springing herbs and grass. This chasing a thunder-storm is novel — and much more satisfactory than chasing a rainbow. Even the wild cattle scent the water and make for it, running like race-horses.

As a matter of fact, the animals of the desert have of necessity become used to doing without water. So far as one can determine, the rats, mice, squirrels, badgers, coyotes, prairie-dogs, skunks, and other denizens of the sand-wastes so rarely get a good drink of water that they seem to have outgrown the need of it. Cattle and horses have also developed such powers of abstinence as might put a camel to shame. There is a belief in the Western country that at least one of the burrows of a prairie-dog town penetrates to water, but whether this be true or not, judging from some of the locations of these queer animal villages the tribe of gophers must contain adepts in abysmal engineering.

One does not live long in the wilds of Arizona without becoming weatherwise and, perhaps, skilled in signs and trails like a frontiersman. The country is so open that the weather for a hundred miles or more can be taken in at a glance and the march of several storms observed at once, even though the sound of wind and thunder be far out of hearing. At Flagstaff, for instance, it is easy to tell when the Hopi are rejoicing in a rain, although it is more than a hundred miles away.

In a country with so little rainfall as Tusayan and in which the soil consists largely of sand with underlying porous rocks, springs are few and their flow scanty. The rivers, also, during most of the year, flow far beneath their sandy beds, which only once in a while are torn by raging torrents. This is one of the many novelties of a country that probably offers more attractions than any land on earth.

Around the springs the life of the Hopi comes to a focus, for here, at all hours of the day, women and girls may be seen filling their canteens, getting them well adjusted in the blankets on their backs for the toilsome climb up the trail. A feeling of admiration tinged with pity arises for these sturdy little women who in the blanket tied across the forehead literally by the sweat of their brows carry half a hundredweight of water up a height of nearly half a thousand feet. *Mang i uh*, "tired?" one asks them. *Okiowa mang i uh*, "Yes, alas, very tired!" they answer, these slaves of the spring.

At the edge of the water in the spring, where nothing can disturb them, are green-painted sticks with dangling feathers. These are offerings to the gods who rule the water element. At none of the frequent ceremonies of the Hopi are the springs forgotten, for a messenger carries prayer-sticks to them and places them in the water. In former times offerings of pottery and other objects were thrown into springs by devout worshippers.

Around the springs are gardens in which onions and other "garden sauce" are grown. When it is possible, a little rill is led from the spring into the gardens. The growing greens lend much to the drear surroundings of the springs, but the plants must be enclosed by a stone wall to keep away marauding burros and goats.

At least one spring at each pueblo is dug out and enlarged, forming a pool at the bottom of an excavation ten feet deep and thirty in diameter, with a graded way leading down to the water. These springs are convenient for watering the thirsty stock, but they are especially used in the ceremonies. During the Flute Dance, for example, they form the theater of an elaborate ceremony in which the priests wade in the spring and blow their flutes in the water.

All the springs have been given descriptive names. At Walpi, there are Dawapa, "sun spring"; Ishba, "wolf spring"; Canelba, "sheep spring"; Kokiungba, "spider spring"; Wipoba, "rush spring"; Kachinapa, "kachina spring," and a number of others, around which cluster many associations dear to the good people of the East Mesa. Like the Hopi, every other human being who fares in the dry Southwest unconsciously becomes a devotee of water worship and eventually finds himself in the grip of the powers of Nature whom the Indians beseech for the fertilizing rain.

Springs are often uncertain quantities in this region. Earthquakes have been known to swallow up springs in one place and to cause them to burst out at another far away. One can readily imagine what a terrible calamity such a phenomenon can be in so dry a country, for the only thing the people can do under such circumstances is to move and to move quickly. It seems probable that some of the many ancient Indian settlements that make the Southwest a ruin-strewn region have been caused by just such fickleness in the water supply.

When modern engineering comes to the aid of the Hopi in storing the occasional vast rushes of water for use throughout the year, a new era will dawn for the Peaceful People. They may then become prosperous farmers and gradually forget the days when they invoked the powers of nature with strange charms and ceremonies.

If the Hopi know well the springs, they are not less perfect in knowledge of plants that are useful to them. One day Kopeli, the former Snake chief, undertook to teach his pupil, Kuktaimu, the lore of the plants growing near the East Mesa. They set out for a flooded cornfield near the wash, and long before they reached it, they could hear the watchers emitting blood-curdling yells to scare away the hated *angwishey*, crows, that from time to time made a dash for the toothsome ears.

It goes without saying that the day was beautiful, for in August thunder-cloud masses often fill the sky with graceful forms, tinted beneath by a rosy glow reflected from the surface of the red plains. The rain had started the vegetation anew and the deep green cornfields showed its benign influences.

Kopeli was communicative, but Kuktaimu, although having been blessed by Salako with a Hopi name, was weak in the subtleties of Hopi speech and missed many points to which, out of politeness, he responded

Owi, "yes." Still, the queer-sounding names of the plants and their uses given by Kopeli were duly put down on paper, for which the Hopi have a word which literally means *corn-husk*. On their journey around the cornfields they met various groups of watchers, some reclining beneath the sloping farm shelters of cottonwood boughs, some chatting together or gnawing ears of corn roasted in a little fire. Everyone requested matches and willingly assisted in conferences over plants of which Kopeli might be doubtful. Boys with their bows and arrows tried for shots at crows, and little girls minded the babies. Life in the fields is full of enjoyment to the Hopi, and the children especially delight to spend a day picnicking amidst the rustling corn-leaves.

The plants having been hunted out in the cornfields, Kopeli and Kuktaimu sought higher ground among the rocks below the mesa, where different species of plants grow. At the foot of the gray rocks are found many plants of great medicinal and ceremonial value to the Hopi, according to the Snake priest, who grew enthusiastic over a small silvery specimen with pungent odor. "Very good medicine," he said. At this juncture, when the plant had been carefully placed in the collecting papers, Kopeli made a characteristic gesture by rapidly sliding one of his palms over the other and said *pasha*, "all." The nearness of the evening meal must have been the influence that caused Kopeli to say that the flora of Tusayan had been exhausted in a single day's search, for subsequent journeys about the mesas brought to light many other plants that have place in Hopi botany.

It is surprising to find such a general knowledge of the plants of their country as is met with among the Hopi. No doubt this wonder arises among those who live the artificial life of the cities. The Hopi is a true child of the desert and near to the desert's heart. His surroundings do not furnish clear streams, grassy meadows, and massy trees; there is much that is stern and barren at first glance, and there is a meagerness except in vast outlooks and brilliant coloring. Here Nature is stripped and all her outlines are revealed; the rocks, plains and mountains stand out boldly in the clear air. Still, in all this barrenness there is abundance of animal and vegetal life which has adapted itself to the semi-desert, and if one becomes for the time a Hopi, he may find in odd nooks and corners many things delightful both to the eyes and the understanding.

There are few Hopi who do not know the herbs and simples, and some are familiar with the plants that grow, in the mountains and canyons, hundreds of miles from their villages. Even the children know many of the herbs, and more than once I have successfully asked them for their Indian names. This is not strange, because such things are a part of their education and in this way they are in advance of the majority of their civilized brothers. After a while the idea impresses one that the Hopi depend on the crops of Nature's sowing as much as on the products of their well-tilled fields. Many a time, as the legends tell, the people were kept from famine by the plants of the desert, which, good or bad seasons alike, thrust their gray-green shoots through the dry sands, a reminder of the basis of all flesh.

Perhaps all the Hopi believe that the wild plants are most valuable for healing and religious purposes, for the plants they use in medicine would stock a primitive drug store. Bunches of dried herbs, roots, etc., hang from the ceiling beams of every house, reminding one of the mysterious bundles of "yarbs" in a negro cabin, and, as occasion requires, are made into teas and powders for all sorts of ills.

Hopi doctors have a theory and practice of medicine, just as have their more learned white brethren. Without the remotest acquaintance with the schools dividing the opinions of our medicine-afflicted race, they unconsciously follow a number of the famous teachings. So, if a patient has a prickling sensation in the throat a tea made from the thistle will perform a cure, as "like cures like." The hairy seeds of the clematis will make the hair grow, and the fruit of a prolific creeping plant should be placed in the watermelon hills to insure many melons. The leaves of a plant named for the bat are placed on the head of a restless child to induce it to sleep in the daytime, because that is the time the slothful bat sleeps. It is not often that Hopi children require an application of bat-plant medicine, but even the best of children get fractious sometimes.

Many are the strange uses of plants by the Hopi, and much curious lore has gathered about them. Some of the plants are named for the animals and insects which live upon them, such as "the caterpillar, his corn," "the mole, his corn"; while some, from fancied resemblances, are called "rat's ear," "bat plant," "rattle plant," etc. Two plants growing in company are believed to be related and one is spoken of as the child of the other. Plants are also known as male and female, and each belongs to its special point of the compass. Many are used in the religious ceremonies; those beloved by the gods appear on the prayer-sticks offered to beseech the kind offices of the nature deities.

Strange as it may seem, the Hopi have medicine women as well as medicine men. The best known of these is Saalako, the mother of the Snake priest. She brews the dark medicine for the Snake dance and guards the secret of the antidote for snake bites. The writer once met at the place called "Broad House" a Navaho medicine man. He was a wrinkled, grizzled specimen of humanity mounted on a burro and was hunting for herbs, as was seen by a glance into the pouch which he wore by his side. A little tobacco induced him to dismount and spread out his store of herbs. When shown the writer's collection of plants, he became much interested, no doubt believing that he had found a fellow practitioner. He requested samples of several of the plants, and when they were given him, stored them away in his pouch with every evidence of satisfaction.

The Hopi priests are also very glad to receive any herb coming from far off, especially from the seacoast, "the land of the far water," as they call it. They treasure such carefully and mix it with sacred smoking tobacco or introduce it into the "charm liquid" which is used in every ceremony to mix the paint for the prayer-sticks and to sprinkle during their strange rites.

An American farmer might be at a loss to recognize a Hopi cornfield when he saw one. In the usually dry stream beds or "washes" he would see low clumps of vegetation, arranged with some regularity over the sand. This is the Hopi cornfield, so planted in order to get the benefit of rains which, falling higher up, may fill the washes, for the summer thunder-storms are very erratic in their favors.

The Hopi farmer sets out to plant, armed only with a dibble which serves as plow, hoe, and cultivator combined. Arriving at the waste of sand which is his unpromising seed-field, he sits down on the ground, digs a hole, and puts in perhaps twenty grains, covering them with the hands. Whether he has any rule like

One for the cutworm,
  One for the crow,
One for luck,
  And three for to grow,

is doubtful, but in the years when cutworms are likely to be plentiful he plants more corn to the hill.

One hill finished, he gets up, moves away about ten feet, sits down, and goes through the same process. He never thins the corn, but leaves the numerous stalks close together for shade and protection from the winds. His care of the field consists merely in hoeing the weeds and keeping a watch on the crows, which he frightens away by demoniac shouts. His scarecrows are also wonders of ingenuity, and many a time one takes them for watchful Indians.

When the corn is fit for roasting ears the Hopi get fat and there is feasting from morn till night. Tall columns of smoke arise from the roasting pits in the fields. These large pits are dug in the sand, heated with burning brush, filled with roasting ears, and closed up tightly for a day. The opening of a pit is usually the occasion of frolicking and feasting, where laughter and song prevail. Some of the corn is consumed at once in making puddings and other dishes of which the Hopi prepare many, and what remains is dried on the cob and hung in bunches in the houses for the winter.

The ears of the Indian corn are close to the ground and are hidden by the blades, which touch the sand. The blades are usually tattered and blown away by the wind, so that by the time the corn is ripe, the fodder is not of much value. The ripe corn is gathered and laboriously carried by back-loads up the steep mesa to the houses, where it is stored away in the corn chamber. Here the ears are piled up in symmetrical walls, separate from the last year's crop, which may now be used, as the Hopi, taught by famine, keep one year's harvest in reserve. Once in a while, the women bring out the old corn, spread it on the roof to sun, and carefully brush off each ear before returning it to the granary, for in this dry country, though corn never molds, insect pests are numerous.

Among the superstitions connected with corn the Hopi believe that the cobs of the seed corn must not be burned until rain has fallen on the crop for fear of keeping away or "drying up" the rains.

No cereal in the world is so beautiful as Hopi corn. The grains, though small, are full and highly polished; the ears are white, yellow, red of several shades, a lovely rose madder, blue, a very dark blue or purple which the Hopi call black, and mottled. A tray of shelled corn of various colors looks like a mosaic.

In the division of labor, the planting, care of the corn in the fields and the harvesting belong to the men. When the brilliant ears are garnered, then the women's work begins. No other feature of the Hopi household is so interesting as the row of three or more slabs placed slantwise in stone-lined troughs sunk in the floor; these are their mills. They are of graded fineness, and this is also true of the oblong hand stones, or *manos*, which are rubbed upon them with an up and down motion as in using a washboard. Sometimes three women work at the mills; the first woman grinds the corn into coarse meal on the coarse stone and passes her product over to the second, who grinds it still finer, and the third finishes it on the last stone; sometimes one woman alone carries the meal through the successive stages, but it is a poor household that cannot furnish two grinders. The skill with which the woman spreads the meal over the grinding slab by a flirt of the hand as the *mano* is brought up for the return stroke is truly remarkable, and the rhythmic precision of all the motions suggests a machine. The weird song sung by the grinders and the rumble of the mill are characteristic sounds of the Hopi pueblos, and as the women grinders powder their perspiring faces with meal while they work, they look well the part of millers. Little girls are early taught to grind, and they often may be prevailed upon to display their accomplishment before visitors.

The finely ground meal is piled and patted into conical heaps on the flat basket trays, making quite an exhibition of which the Hopi women are very proud, much meal indicating diligence as well as a bountiful supply of the staff of life. Grinding is back-breaking work, and one humanely wishes that the Hopi women, and especially the immature girls, could be relieved of this too heavy task.

While corn-meal enters into all Hopi cooking as the chief ingredient, most of it is made into "paper-bread," called *piki*, resembling more than anything else the material of a hornet's nest. This bread is made from batter, colored gray with wood ashes, dexterously spread very thinly with the hand over a heated slab of stone. Piki bakes quickly, coming free from the slab and is directly folded up into convenient compass and so crisp is it that it crackles like paper. Sometimes it is tinted with attractive colors for festal occasions, such as the Kachina ceremonies.

Before a dance the women busily prepare food and the girls go about speechless, with mouths full of meal, "chewing yeast" for the corn pudding. This and other ins and outs of the kitchen make the knowing traveler rather shy of the otherwise attractive-looking Hopi food.

Surely corn is the "mother" of the Hopi. All the powers of nature are invoked to grant a good crop by giving rain and fertility, and the desire for corn is the central motive of the numerous ceremonies of the villagers of Tusayan. If the prayers of the Hopi could be formulated like the "*Om mane padme hum*" of the Hindus, it would be in the smaller compass of these words, "Grant us corn!" Nor are these simple villagers ungrateful for such blessings. Kopeli used to stand looking over his thriving cornfield and say with fervor, "*Kwa kwi, Kwa kwi,*" "thanks, thanks," and it was evident that the utterance was made with true thankfulness and a spirit of devotion.

It is difficult to imagine the ancient people without corn; but very long ago, as the legends tell, they did not know this cereal. Certain it is they were not then pueblo dwellers and had not spread far in the Southwest. They lived in the places where there was game, and for the same reason that the important food animals lived in such places, — the presence of vegetation that would sustain life.

Their life was along the foot hills of well-watered and timbered mountains rising from plains, where with the flesh of game and seeds and roots of plants they could supply their semi-savage wants. Long perhaps they roved thus as hunters until they drifted to the land of promise — the semi-desert where agriculture of grain plants was born and there they received "mother corn." Henceforward all the former sources of food wrested from a niggard Nature became as nothing to this food of foods, but even to this day the Hopi have not forgotten their old-time intimate knowledge of the resources in fields not sown by human hands. With corn, which possesses a high food value and is easily raised, stored, and preserved, the Hopi and their Pueblo brethren spread without fear throughout the semi-arid lands.

It has been pointed out that a constant diet of corn produces disagreeable physiological effects, and this is suggested for the use of chile and other condiments, the mixture of corn food with meat and vegetable substances, and, in fact, for the multifarious ways of preparing and cooking corn. This necessity for variety also gives an explanation of the resourcefulness of the Hopi housewife and has acted as a spur to her invention of palatable dishes.

The vocabulary of corn in the Hopi language is extensive and contains words descriptive even of the parts of the plant that are lacking to most civilized people. The importance of corn is also reflected in the numerous words describing the kinds of meal, the dishes made from corn or in which corn enters, and of the various ways in which it is prepared by fire for the consumption of the ever-hungry Hopi. To give an incomplete census of corn foods, there are fifteen kinds of *piki* or paper bread, three kinds of mush; five of short-cake; eleven of boiled corn; four kinds baked or roasted in the coals; two cooked by frying; four stewed and eight of cooked shelled corn, making fifty-two varieties.

After the paper-bread, perhaps the most popular food is *pigame*, or sweet corn mush, wrapped in corn-husk and baked in an underground oven. Another standby is shelled corn soaked and boiled till each grain swells to several times the normal size. The Hopi like their food well-cooked and know the art of making each starch grain expand to the limit. A book of Hopi cookery would be bulky, but how interesting to the housewife who would know how to make plain food appetizing without milk or eggs, and who would learn new and strange combinations! There are cakes made from dried fruits, chopped meat, and straw, put on the roof to dry; dumplings formed around old hammerstones, corn dodgers, pats of corn-meal mush wrapped in corn husk and boiled or baked, and many other styles of food that would seem strange to other than a Hopi epicure.

When it is time to dine, a large bowl of stew is placed on the floor as the *piece de resistance* and beside it a tray of *piki*. Each member of the family breaks off a piece of *piki*, and, holding it between thumb and finger, it is dragged through the stew much like a seine to catch as many particles of meat as possible, then deposited far back in the mouth so that the stew adhering to the fingers may be cleared off with a resounding smack of the lips. A traveler to Hopi in 1869 describes a more formal meal which consisted of mutton, dried peaches, blue *piki*, coffee, and a drink made by steeping the roasted heart of agave in water. This writer says:

> You take a small piece, lay a fragment of mutton and some peaches upon it or a little of the sweet liquid and bolt the mass, spoon and all. This dinner, though prepared and cooked by Indians, tasted better than many a meal eaten by us in border settlements cooked by whites.

Hopi women assiduously gather the seeds of grasses and other plants, which they grind up and add to corn-meal to improve the flavor of the bread, or, perhaps, a prized bread is made entirely of the ground seed of some desert plant. Oily seeds, such as those of the piñon, pumpkin, and melons are ground to form shortening in various cakes and to add richness to stews. Often food is colored with harmless vegetable dyes, no doubt with the deep-laid scheme on the part of the mother of the household to cause the familiar fare to be attacked with renewed zest. Our tradition of "spring lamb with mint sauce" is duplicated by stewed rabbit with *nanakopshi* greens, which, witr various other herbs, are put to appropriate uses by the master of the Hopi culinary art.

IV

THE WORKERS

The Hopi believe in the gospel of work, which is evenly divided between the men and the women.

When it is said that people work, there is, unconsciously perhaps, a desire to know the reason, which is rarely a subject of curiosity when people amuse themselves. Come to think of it, the answer is an old one, and a Hopi, if asked why he works, might put forward the first great cause, *nusha*, "food."

Not only must the Hopi work to supply his wife and little ones, but he must do his share for his clan, which is the large family of blood-relations, bound together by the strongest ties and customs of mutual helpfulness. This family is an object of the greatest pride, a little world of its own, in which every member from the least to the greatest has duties and responsibilities. So all labor — men, women, and the little ones, who add their tiny share. The general division of work gives the woman the affairs of the household, and the man the cultivation of the fields. Men plant corn and the older women often help hoe it, and the women and children frequently go down to the fields and watch the crops to keep off birds.

When the harvest is gathered, taken up the mesa, and put into the granary, man's interest in it ceases, except in the matter of eating a large share. Never was a Hopi who was not hungry. Much of the woman's time is taken up in grinding corn and baking bread. The water-carrying falls to her, and this duty might give rise to a suspicion that she has the larger share of the burdens, if the Hopi were not compelled to be frugal in the use of water. Besides the duties mentioned, she may also add that of potter, basket maker, house builder, and sometimes carver of dolls and maker of moccasins. Then the children must be cared for, but everyone takes a hand at that, including the children themselves. If it were not for the numerous ceremonies, woman's work in Hopiland would be much easier. Grinding, baking, water-carrying, and the bother and hurry of preparation for various events continue with painful iteration. The Hopi housewife can give full condolence to her white sister who has borne the burdens of a church festival, and the plaint that "woman's work is never done" would sound familiar to her ears. Still, rarely is she heard to bewail her lot, and it may be depended on that no maidens bloom in idleness about her house.

But the men also follow crafts, and of these, carding, spinning, dyeing, and weaving are exclusively man's work in contrast with the Navaho, among whom such matters are woman's work. His also is the task of wood-gathering, which takes him far afield, since there is hardly a growing thing in the neighborhood worth collecting for fuel. Coal there is in the ground in plenty, but the Hopi make less use of it than did their ancestors, and the householder sets out from time to time with a burro or two for the distant mesas, where the stunted cedars grow, to lay in wood for cooking. Each year the cedars get farther away, so that at some future time the Hopi may have to make use of the neglected coal.

A Hopi is in a fair way to become a great man among his kin when he owns horses and a wagon. In consequence of such wealth, he usually shows his pride by the airs he assumes over his less fortunate tribesmen, and justly, too, because hauling supplies for the schools and traders brings in the silver dollars that replenish the larder with white man's food. Ponies are cheap, and twenty can exist as well as one on the semi-starvation of the desert, so a Hopi teamster often takes along his whole herd when on a freighting trip, to make sure of arriving at his journey's end, and a look at his horses will prove him a wise man.

Seemingly the men work harder making paraphernalia and costumes for the ceremonies than at anything else, but it should be remembered that in ancient days everything depended, in Hopi belief, on propitiating the deities. Still if we would pick the threads of religion from the warp and woof of Hopi life there apparently would not be much left. It must be recorded, in the interests of truth, that Hopi men will work at day's labor and give satisfaction except when a ceremony is about to take place at the pueblo, and duty to their religion interferes with steady employment much as fiestas do in the easy-going countries to the southward.

Really, the Hopi deserve great credit for their industry, frugality, and provident habits, and one must commend them because they do not shun work and because in fairness both men and women share in the labor for the common good.

An account of the arts which are carried on in the Hopi towns may prove interesting to the reader who would like to know something of the methods of the moccasin maker, potter, weaver, carver, basket maker, and house builder, examples of whose handiwork are scattered widely among collectors of artistic and remarkable things.

As though to keep up the dignity of the Peaceful People the wife of "Harry," the new Snake chief of Walpi, frequently wears the cumbrous foot-gear common along the Rio Grande. In spite of the scarcity of deer-skins, every Hopi bride must have as part of her trousseau a pair of these remarkable foot-coverings, which require a large deerskin for their manufacture. When the burdensome ceremony of marriage is over the moccasins are laid away or worn out and never again may the woman expect to have her measure taken for another pair.

But as moccasins are a part of the men's costume without which they cannot run well over the yielding sand, and as there is no village shoemaker, every man must make his own or go barefoot. Frequently in the villages one meets a moccasin maker, chewing at the rawhide and busily plying his awl and sinew while he goes gadding about. Just before the Snake Dance, when every Snake priest must provide a pair of new moccasins for himself, this art is very much in evidence.

The moccasin maker takes pride in hiding his stitches, and it must be said that his sewing is exceptionally good in spite of the crude tools of his craft. With the same skill he displays in other crafts, the Hopi prepares the leather for the indispensable moccasins. The simplest way of giving color to the leather is to rub red ocher or other clay into the soft-tanned skin, as is seen in the red moccasins of the Snake dancers. A warm brown is given to the leather with an infusion of the bark of the water birch, and a black dye is made by burning piñon resin with crude native alum. Sometimes the esthetic tastes of a young man are gratified by moccasins dyed with aniline red or blue according to his fancy.

If the visitor will give an order for a pair of *totchi*, he may see the whole process at his leisure. A piece of well-curried cowhide, preferably from the back of the animal, is produced, the outline of the foot is marked out on it and a margin is left by the cutter for the turning up of the sole. This is all the moccasin maker seems to require, and his formula for the height of the instep has not been divulged, but it must be effective, because moccasins are made to fit with greater art than is displayed by many civilized shoemakers.

The soles are buried in damp sand to make them pliable, and the front section of the top is sewn around the edge reaching to about the ankle bones. The moccasin is then turned inside out and the ankle section sewn on. Tying strings are added, or if especial style is desired, silver buttons made by Navaho from dimes or quarters take their place.

The Hopi live a very long way from the range of the deer, a fact which accounts largely for their use of woven fabrics. But deerskins must always have been in demand, and these were got in exchange with the Navaho, Havasupai, and other neighbors. In this way in old times buffalo skins and pelts of animals came to Tusayan, and Hopi bread and blankets went to remote mountains and plains.

It would be interesting to know whether the Hopi formerly were sandal people or moccasin people, and this knowledge would reveal a great deal that is now mere guesswork as to their history. The sandal people would mean those of the south who were of Mexico, where no moccasins seem ever to have been worn. The moccasin people would be those of the north, the tribes of our mountains and plains, among whom this foot-wear is typical. Perhaps the Hopi belong to both classes. The cliff-dwellers wore sandals, and for winter had boots of network to which turkey feathers were skilfully fastened as covering. The sandals found in the cliff-houses are variously woven from rushes or agave strips, or maybe a plain sole of leather with the toe cord, but those worked of cotton showing ingenious designs are worthy of the highest admiration.

Those clans of the cliff-people and the clans from the south that congregated in Tusayan centuries ago were sandal wearers, while the resident clans and those coming from the north, perhaps bands of the Ute, — were moccasin wearers and impressed their language and moccasins on the Hopi. This was much to the advantage of the Hopi, granting that they had never thought of better protection than sandals from the biting winter.

Everyone who visits Tusayan will bring away as a souvenir some of the work of Nampeo, the potter who lives with her husband Lesu in the house of her parents at Hano, the little Tewa village on the great Walpi mesa near the gap. The house belongs to Nampeo's mother according to Pueblo property right, wherein she and her husband, both aged and ruddy Tewa, with their children and grandchildren live amicably as is usual among the Peaceful People. The house below the mesa, topped with a glowing red iron "Government" roof, is Nampeo's, who thus has two houses, but she spends most of her time in the parental dwelling at Hano.

Nampeo is a remarkable woman. No feeling of her racial inferiority arises even on the first meeting with this Indian woman, bare-foot, bonnetless, and clad in her quaint costume. For Nampeo is an artist-potter, the sole survivor in Hano of the generations of women artists who have deposited the product of their handicraft in the care of the dead.

In the household her aged father and mother are final authority on the interpretation of ancient symbolic or cult representations in art. Nampeo likewise carefully copies on paper the decorations of all available ancient pottery for future use. Her archeological methods are further shown by her quest for the clays used by those excellent potters of old Sikyatki and by her emulation of their technique.

One noon under the burning August sun, Doctor Fewkes and the writer climbed the East Mesa, the former to attend the Flute Ceremony at Walpi and the latter with an appointment to pry into the secrets of Nampeo, the potter. In the house, pleasantly cool and shaded, sat the old couple and Lesu. The baby was being secured to its board for its afternoon nap, while Lesu spun. It was a pleasure to examine the quaint surroundings and the curious belongings hung on the wall or thrust above the great ceiling beams, — strings of dried *wiwa*, that early spring plant which has before now tided the Peaceful People over famine, gaily painted dolls, blankets, arrows, feathers, and other objects enough to stock a museum. Lesu did the honors and said among other things that some of the ceiling beams of the room came from ancient Awatobi, destroyed in 1700.

A small niche in the rear wall of the living room, at the back of which stood a short notched log-ladder, caused some speculation. Quite unexpectedly and in a somewhat startling way its purpose was explained, for, when someone called the absent Nampeo, a pair of feet were seen coming down the steps of the ladder, followed finally by Nampeo, who, after a profound bodily contortion, smilingly emerged from the narrow passage into the room.

Nampeo was prepared to instruct. Samples of the various clays were at hand and the novice was initiated into the qualities of the *hisat chuoka*, or ancient clay, white, unctuous and fragrant, to which the ancient Sikyatki potters owed the perfection of their ware; the reddish clay, *siwu chuoka*, also from Sikyatki; the hard, iron-stained clay, *choku chuoka*, a white clay with which vessels are coated for finishing and decoration, coming from about twelve miles southeast of Walpi. In contrast with Nampeo's four clays the Hopi women use only two, a gray body clay, *chakabutska*, and a white slip clay, *kutsatsuka*.

Continuing her instructions Nampeo transferred a handful of well-soaked ancient clay from a bowl on the floor by her side to a smooth, flat stone, like those found in the ruined pueblos. The clay was thrust forward by the base of the right hand and brought back by the hooked fingers, the stones, sticks, and hairs being carefully removed. After sufficient working, the clay was daubed on a board, which was carried out, slanted against the house, and submitted to the all-drying Tusayan sun and air. In a short time the clay was transferred from the board to a slab of stone and applied in the same way, the reason being a minor one known to Nampeo, — perhaps because the clay after drying to a certain degree may adhere better to stone than to wood. Sooner than anyone merely acquainted with the desiccating properties of the moisture-laden air of the East might imagine, the clay was ready to work and the plastic mass was ductile under the fingers of the potter.

Nampeo set out first to show the process of coiling a vessel. The even "ropes" of clay were rolled out from her smooth palms in a marvelous way, and efforts to rival excited a smile from the family sitting around as interested spectators. The concave dish called *tabipi*, in which she began the coiled vessel and which turns easily on its curved bottom, seems to be the nearest approach of the Pueblos to the potter's wheel. The seeming traces of unobliterated coiling on the bases of some vessels may be the imprints from the coils of the *tabipi*. As the vessel was a small one, the coiling proceeded to the finish and the interims of drying as observed in the manufacture of large jars were not necessary. Then gourd smoothers, *tuhupbi*, were employed to close up the coiling grooves, and were always backed from the outside or inside by the fingers. Finally the smooth "green" vessel was set aside to dry.

Then a toy canteen was begun by taking a lump of clay which, by modeling, soon assumed the shape of a low vase. With a small stick, a hole was punched through each side, a roll of clay was doubled for the handles, the ends thrust through the holes and smoothed down inside the vase, through the opening. The neck of the canteen was inserted in a similar way. Now the problem was to close the opening in this soft vessel from the outside. Nampeo threw a coil around the edge of the opening, pressing the layers together, gradually drawing in, making the orifices smaller until it presented a funnel shape. Then the funnel was pressed toward the body of the canteen, the edges closed together, soldered, smoothed, and presto! it was done and all traces of handling hidden. Anyone knowing the difficulties will appreciate this surprisingly dextrous piece of manipulation. Afterward, Nampeo made a small vase-shaped vessel, by modeling alone, without the addition of coiling as in the shaping of the canteen.

The ware when it becomes sufficiently dry must receive a wash of the white clay called *hopi chuoka* or *kutsatsuka*, which burns white. Thereupon it is carefully polished with a smooth pebble, shining from long use, and is ready for decoration. The use of the glaring white slip clay as a ground for decoration was probably brought from the Rio Grande by the Tewa; ancient Hopi ware is much more artistic, being polished on the body or paste, which usually blends in harmony with the decoration.

Nampeo exhibited samples of her paints, of which she knows only red and dark brown. The red paint is yellow ochre, called *sikyatho,* turning red on firing. It was mixed on a concave stone with water. The dark brown paint is made from *toho,* an iron stone brought from a distant mesa. It was ground on a slab with a medium made from the seed of the tansy mustard (*Sisymbrium canescens*). The brushes were two strips of yucca, *mohu,* one for each color. With these slender means, without measurement, Nampeo rapidly covered the vessels with designs, either geometrical or conventionalized, human or cult, — figures or symbols. The narrow brush, held like a painter's striper, is effective for fine lines. In broad lines or wide portions of the decoration, the outlines are sharply defined and the spaces are filled in. No mistakes are made, for emendations and corrections are impossible.

Quite opportunely the next day, an invitation to see the burning of pottery came from an aged potter who resides at the Sun Spring. When the great Hopi clock reached the appointed place in the heavens, the bowed yet active potter was found getting ready for the important work of firing the ware. In the heap of cinders, ashes, and bits of rock left from former firings, the little old woman scooped out a concave ring. Nearby was a heap of slabs of dry sheep's droppings, quarried from the floor of a fold perched on a ledge high up the mesa and brought down in the indispensable blanket. In the center of the concave kiln floor a heap of this fuel was ignited by the aid of some frayed cedar bark and a borrowed match from the opportune Pahana, "people of the far water," the name by which white men are known. When the fire was well established, it was gradually spread over the floor to near the margin and the decorated bowls brought from the house were set up around with the concave sides toward the fire, while the potter brought, in her blanket, a back load of friable sandstone from a neighboring hillock.

Under the first heat the ware turned from white to purple gray or lavender, gradually assuming a lead color. They were soon heated enough and were ready for the kiln. Guarding her hand by the interposition of a fold of the blanket, the potter set the vessels, now quite unattractive, aside, proceeded to rake the fire flat and laid thereon fragments of stone at intervals to serve as rests or stilts for the ware. Larger vessels were set over smaller and all were arranged as compactly as possible. Piece by piece, dextrously as a mason, the potter built around the vessels a wall of fuel, narrowing at the top, till a few slabs completed the dome of the structure, itself kiln and fuel.

Care was taken not to allow the fuel to touch the vessels, as a discoloration of the ware would result, which might subject the potter to the shafts of ridicule. Gradually the fire from below creeps up the walls till the interior is aglow and the ware becomes red hot. Little attention is now needed except closing burned out apertures with new pieces of fuel; the potter, who before, during the careful and exact dispositions, has been giving little ejaculations as though talking to a small child, visits the kiln intermittently from the nearby house. Here she seeks refuge from the penetrating, unaromatic smoke and the blazing sun.

The Hopi have an odd superstition that if any one speaks above a whisper during the burning of pottery the spirit inhabiting the vessel will cause it to break. No doubt the potter had this in mind while she was whispering and was using all her blandishments to induce the small spirits to be good.

She remarked that when the sun should hang over the brow of the mesa at the height indicated by her laborious fingers, the ware would be baked, the kiln a heap of ashes, the yellow decoration a lively red and the black a dark brown on a rich cream-color ground. Next day, with true foresight, she brought her quaint wares to the camp and made a good bargain for them, incidentally asking, "Matches all gone?"

One woman at least in Tusayan is a weaver of blankets. Anowita's wife enjoys that distinction because she is a Navaho, among whom weaving is woman's work. The Hopi housewives have enough to do keeping house, a thing not burdensome to the Navaho, and as has been explained, the Hopi men hold a monopoly of the spinning and weaving.

Time out of mind the Hopi have grown cotton in their little fields, and the first white men that made their acquaintance were presented with "towels" of their weaving as a peace offering. In the cliff-houses of the ancient people are found woven fabrics of cotton and rugs made of strips of rabbit fur like those now to be seen in the pueblos. The ancient people also had feather garments made by tying plumage to a network of cords. In the ruins of the pueblos one often finds cotton seeds which have been buried with the dead, and the braided mats of yucca or bark and bits of cloth fortunately preserved show that the people of former times were skilful weavers. There is no reason to doubt that the Hopi stuffs were prized for their excellence throughout the Southwest in the early times as they are now.

When the Spaniards brought sheep among the pueblos, the weavers and fabric makers seem to have appreciated the value of wool at once, and the ancient garments of feathers and skins quickly disappeared. Cotton remained in use only for ceremonial costumes or for cord employed in the religious ceremonies. The rabbit-fur robes which once were made throughout a vast region of the Rockies from Alaska to the Gulf of California were largely displaced by blankets, in later years, gorgeously dyed and cunningly woven. Long before the introduction of trade dyes the Hopi were satisfied with sober colors; the dark blue and brown given to the yarn by the women were from the plants. Even now the Hopi weavers stick to their colors and refuse to perpetrate the zigzags of the Navaho. For this reason the women of all the pueblos of the Southwest dress in dark blue and brown, as the Hopi are purveyors of stuffs for wear to all their fellow house-dwellers of Indian lineage. Good cloth it is, too, and worthy of its renown, for it wears exceedingly well. More than one generation often enjoys its service, and when the older folks get through with their blanket dresses, the little ones have garments fashioned from them for their own apparel.

If one will examine the Hopi blankets, he will be surprised at the skilful weaving they show. The blanket dress often has the body of plain weaving in black and the two ends bordered with damask or basket weave in blue. Sometimes a whole blanket is of damask, giving a surface that, on close inspection, has a pleasing effect. The women's ceremonial blanket of cotton with blue and red borders sometimes show three kinds of weaving and several varieties of cording. The belts also have a wonderful range of patterns. On the whole, one is led to believe that the Hopi are more adept at weaving than their rivals, the Navaho.

The carding and spinning are thoroughly done, the resulting yarn being strong, even, and tightly twisted with the simple spindle. Sometimes the spinner dresses and finishes the yarn by means of a corn cob smoothed by long use. The women, by virtue of their skill in culinary matters, are usually the dyers, and the dye they concoct from sunflower seeds or blue beans is a fast blue. In old times cotton was prepared for spinning by whipping it with slender switches on a bed of sand, and this process is yet required for the cotton used for the sacred sashes. Now nearly every family is provided with wire cards purchased from traders. These cards look quite out of place in the hands of priests in the *kiva*, where they are used in combing the cotton for the sacred cord used in tying the feathers to the *pahos*.

When the kiva is not in use for a ceremony it is common to find there a weaver busy at his rude loom and growing web. To the great beams of the roof is fastened the upper yarn beam of the loom, and secured to pegs in holes in the stone slabs of the floor is the lower yarn beam. Between these is tightly stretched the warp. The weaver squats on the floor before the loom, having ready by him the few simple implements of his craft, consisting of a wooden knife or batten highly polished from use, for beating down the yarn, a wooden comb also for pressing home the woof, and the bobbins which are merely sticks with the yarn wrapped back and forward spirally upon them. He picks out a certain number of warp threads with the batten, passes through the bobbin, beats the yarn home with great patience, and so continues, making slow headway.

There are several reasons why the kiva is used by the weavers. These subterranean rooms, usually the property of the men, are cool and quiet, and the light streams down from overhead across the surface of the web, allowing the stitches to be seen to good advantage. The best reason is that the kiva ceiling is high enough to allow the stretching of the warp to the full length of a blanket, which cannot be done in the low living rooms of the dwellings.

Belts, garters, and hair tapes are made on a small loom provided with reed or heddle frame, and usually this is woman's work. Strangely enough the belt loom is a kind of harness, for the warp is stretched out between the woman's feet and a yoke that extends across her back. The yarn used for belts is bought from the trader. The old belts are marvels of design and are among the most pleasing specimens of the art work of the Hopi.

With the introduction of dyed trader's yarns and coal-tar colors has come a deterioration in the work of the Navaho weavers. Among the Hopi this is not noticeable, but, no doubt, for this reason the embroidery on the hems of the ceremonial blankets, sashes, and kilts is gayer than in former times when subdued mineral colors and vegetable dyes only were available.

Every visitor to the Hopi pueblos is attracted by the carved wooden figures painted in bright colors and decorated with feathers, etc., that hang from the rafters of the houses. "Dolls," they are usually called, but the Hopi know that they are representations of the spiritual beings who live in the unseen world, and a great variety there is of them. Thousands of these figures are made by the Hopi, many to be sold to visitors, a thing no Zuñi would do, because in that pueblo these images have a religious character and are hidden away, while the Hopi decorate the houses with them.

The carvers of these strange figurines must be granted the possession of much skill and ability in their art, which is carried on with a few simple tools. The country far and near is ransacked for cottonwood, this being the wood prescribed for masks, dolls, prayer-sticks, etc. The soft cottonwood, especially the root, is easily worked with the dull knives that the Hopi possess. On every hand is soft, coarse sandstone for rubbing the wood into shape, and much of the work is not only finished, but formed by this means. For this reason the rocks around a Hopi village are covered with grooves and pits left by the workers in wood.

If any parts, such as ears, hair, whorls, etc., are to be added to the figures, they are pegged on quite insecurely. Some of the terraces which surmount the kachina masks are remarkable structures built up of wood pegged together. A little string, a few twigs and pieces of cottonwood suffice the Hopi for the construction of flowers and complicated parts of the decoration of dolls and masks or other ceremonial belongings. Corn husks, dyed horsehair, woolen yarn, deerskin, cotton cloth, twigs, basketry, and feathers are worked in and the result, though crude, is effective.

But in the realm of mechanical apparatus the Hopi is even ahead of the toy makers of the Schwartzwald. For the Palulukong ceremony he arranges startling effects, causing the Great Plumed Snake to emerge through screens, out of jars, or from the ceiling of the kiva, to the number of nine appearances, each requiring artful devices. The head of the Snake is a gourd furnished with eyes, having the mouth cut into sharp teeth, a long tongue, a plume, and the whole surface painted. The body is made up of wooden hoops over which cords run and is covered with cloth. Often two of these grotesque monsters are caused, by the pulling of cords, to advance and withdraw through flaps in the screen and to struggle against each other with striking realism. Nothing in Hopiland is more remarkable than this drama, as one may gather from Dr. Fewkes' account of it given at another place.

Little of the Hopi's skill as a carver and decorator goes to the furnishing or building of the house; almost all is taken up with ceremonial matters. Previous to a few years ago chairs were unknown, as was any other domestic joinery, except the Hopi head masks, prayer-sticks and the thousand objects used in his pagan worship, in the manufacture of which he was master of all expedients. As a worker in stone and shell he still knows the arts of the ancient times, but lacks the skill of his forebears. The turquoise mosaics of old days so regularly and finely set on the backs of sea shells, have given place to the uneven scraps of turquoise set in confusion on bits of wood, as on the woman's earrings. Many devices have gone out entirely, and it is probable that no Hopi could make an axe of hard stone like the old ones or chip a finely proportioned arrow-head. The hand-stones for grinding corn are still made, and a woman pecking away at one with a stone hammer is not infrequently seen and heard.

The Hopi were never metal-workers, because free metals are scarce in the Southwest. Their name for silver, with which they became familiar in the shape of coins, is *shiba*, "a little white cake." Gold they regard with suspicion, since it resembles copper or brass, with which they have been deceived at times by unscrupulous persons. A few workers in silver have produced some crude ornaments, but the Hopi gets his buttons, belt ornaments, etc., from the adept Navaho, silversmiths by trade, through whom also strings of beads come from the pueblos of the Rio Grande.

The rocks all over the Southwest bear witness that the Hopi can draw. In thousands of instances he expressed his meaning in symbols or in compositions representing the chase of the deer or mountain goat.

One of these groups on the smooth rocks near Holbrook, Arizona, shows a man driving a flock of turkeys, and is exceedingly graphic. On the cliff faces below Walpi are numerous well-executed pictographs, and occasionally one runs across recent work on the mesa top that excites admiration. With sculpture in the round the Hopi has done nothing remarkable because his tastes and materials have never led in this direction. A few rather large figures rudely carved from soft sandstone may be seen around the pueblos, and numerous fetiches, some of very hard stone, representing wolves, bears, and other animals, are still in the keeping of the societies. Some of these are very well done, but show little progress in sculpture. The visitor must beware of the little fetiches whittled from soft stone and offered for sale as genuine by the guileful Hopi in quest of *shiba*.

The industry which the Hopi woman has all in her own hands is basket-making, and the work is apportioned to such as have the skill and fancy for it, as if there were a division of labor. The women of the three towns on the East Mesa do not make baskets at all, those of the Middle Mesa sew only coiled baskets, while the women of Oraibi weave wicker baskets exclusively. Thus, there is no difficulty in saying just where a Hopi basket comes from, and there is also no excuse for not recognizing these specimens of Hopi woman's work at first glance, as they have a strong individuality that separates them from all other baskets of the Indians.

If one should visit the most skilful basket-maker of the Middle Mesa, Kuchyeampsi, that modest little woman, might be seen busily at work, and from her a great deal about the construction of coiled baskets could be learned. But it would take some time and patience to find that the grass whose stems she gathers for the body of the coil is named *takashu*, which botanists know as *Hilaria jamesii*, and that the strips which she sews over and joins the coil are from the leaves of the useful *mohu* (*Yucca glauca*).

Then when Kuchyeampsi comes home laden with her basket materials one must take further lessons in stripping the yucca leaves, splitting them with the thumb-nail to uniform size, and dyeing some of them various colors, for which anilines are principally used in these degenerate days. One must have an eye for the colors of the natural leaves of the yucca and select the yellow or yellowish green of the old leaves, the vivid green of the young leaves, and the white of the heart leaves, for the basket weaver discriminates all of these and uses them in her work.

Of course Kuchyeampsi has all her material ready, the strips buried in moist sand, the grass moistened, and she may be starting a plaque. The slender coil at the center is too small to be formed with grass stems, so she builds it up of waste bits from the leaf-tripping, wrapping it with yucca strips, and taking only a few stitches with the encircling coil, since the bone awl is too clumsy for continuous stitching at the outset. After the third round the bone awl is plied, continuously piercing through under the coil and taking in the stitches beneath strips. As a hole is made the yucca strip is threaded through and drawn tight on the grass coil, and so the patient work goes on till the basket is complete. The patterns which appear on the baskets are stored up in the maker's brain and unfold as the coil progresses with the same accuracy as is evinced by the pottery decorator. The finish of the end of the coil gives an interesting commentary on Hopi beliefs. It is said that the woman who leaves the coil end unfinished does not complete it because that would close her life and no more children would bless her.

At Oraibi one may see the women making wicker tray-baskets. Three or four slender sumach twigs are wickered together side by side at the middle and another similar bundle laid across the first at right angles. Then dyed branches of a desert plant known as "rabbit brush" are woven in and out between the twigs, and as the basket progresses she adds other radial rods until the basket is large enough. She finishes the edge by bending over the sumach ribs, forming a core, around which she wraps strips of yucca.

One must admire the accuracy with which the designs are kept in mind and woven into the structure of the basket with splints of various colors or strips of tough yucca. The translation of a design into the radiating sewing of the coiled basket or the horizontal filling of the wicker basket shows the necessity of the different treatments, contrasting with the freedom which it is the potter's privilege to display on the smooth surface of her ware. So far as known the Hopi women never fail in applying their designs, however intricate. Frequently these designs represent mythical birds, butterflies, clouds, etc.

Among the Hopi certain of the villages are noted for their local manufactures. Thus Walpi and Hano are practically the only towns where pottery is made, the Middle Mesa towns are headquarters for coiled baskets, and Oraibi furnishes wicker baskets. Perhaps the meaning of this is that these arts belong to clans, who have preserved them and know the secrets, and with the dying out of the workers or migration of the clans the arts have disappeared or have been transformed. Another cause which will suggest itself is the local abundance and quality of the materials required to be found in the surrounding plains and mountains.

Basketry has at least as many uses as pottery among the Hopi, and a number of kinds besides the familiar plaques with symbolical decoration have been eagerly sought by collectors. The crops from the fields are borne to the houses on the mesas in carrying baskets, resembling a pannier, which are worked of wicker over a frame of two bent sticks crossed at right angles. In the house the coiled and wicker trays heaped high with corn meal, the basket for parched corn and the sifting basket near the corn grinding stones, will be found. In the bread-baking room is the coarse, though effective, *piki* tray, and occasionally one may still see a neatly made floor mat. The thin checker mat of ancient days has long since gone out of use, but formerly, the dead were wrapped in such mats before they were placed in the earth.

Over the fireplace is a hood of basketry plastered to prevent burning. The wicker cradle to which the infant hopeful is bound must not be forgotten. Several small globular wicker baskets for various purposes may also be displayed among the household belongings. The mat of grass stems in which the wedding blanket is folded is also a kind of basketry, as are the twined mats for covering the hatchway of the kiva and the twined fence around the fields.

With all their own resources, the Hopi are great collectors of baskets from other tribes. One must not be surprised to see in use in the Hopi houses the water bottles coated with pitch and the well-made basket-bowls from the Havasupai of Cataract Canyon, the Pimas of southern Arizona, and other tribes touched by Hopi commerce.

The vizors of old masks used in the ceremonies were of basketry, generally a section cut from a Ute basket-bowl, which shows one of the most interesting employments of baskets among the Hopi. The highly decorated trays may also be said to have a sacred character from their frequent appearance in the ceremonies, where they are used to contain prayer-sticks, meal, etc. Appropriately the women's ceremonies display many baskets on the altars, and in the public dances each woman carries a bright plaque. One of the episodes of these ceremonies is full of action when women throw baskets to men who struggle energetically for them. On this account these ceremonies have been called Basket Dances.

One of the frequent sights in a Hopi town is a woman carrying a heaped-up plaque of meal of her own grinding as a present to some friend. This usually happens on the eve of a ceremony, like our Christmas gifts, but no one must fail to notice that an equal present is religiously brought in return.

The Hopi value their baskets; they appreciate fully a pretty thing, and this explains why one of the Sichomovi men, who is rich in Havasupai baskets, has had the good taste to decorate the walls of the best room of his house with these trophies of Cataract Canyon.

Judging from the number of ruins in the Southwest, it might be thought that the former inhabitants spent much of their time in laying up walls and considered the work easy. What these ruins do show in an emphatic way is the organization of the builders and what mutual aid will accomplish.

Dismiss the idea of the modern architect, builder, laborers, brick makers, planing mill hands, plumbers, etc., combining to get ready a dwelling for a family, and substitute in their place all the Indian relatives, from the infant to the superannuated, lending willing hands for the "raising." The primitive architect is there, builders too, of skill and experience and a full corps of those who furnish builders' supplies, including the tot who carries a little sand in her dress and those who ransack the country round for brush, clay, beams, stones, and water.

Before going farther it must be understood that house-building is women's work among the Hopi, and these likewise are the house-owners. It seems rather startling, then, that all the walls of the uninhabited houses and the fallen walls of the ruins that prevail in the Southwest should be mainly the work of women's hands, whose touch we might expect to find on the decorated pottery, but not on the structures that cause the Pueblo people to be known as house-builders. From this one begins to understand the importance of woman in these little nations of the desert.

Let us suppose that an addition is to be made to a Hopi village of a house containing a single room, built without regard to the future additions which may later form a house cluster. The plan of such a house would be familiar to any Hopi child, since it is merely a rectangular box. When the location has been determined, word is passed around among the kinsfolk and the collection of stones, beams, etc., is begun. Cottonwood trees for many miles around are laid under contribution. Some beams may be supplied from trees growing near-by along the washes and in the cornfields, and some may require journeys of eighty or a hundred miles, representing immense labor. Beams are precious, and in this dry climate they last indefinitely, so that one may not be surprised to find timber in the present houses from Awatobi or older ruins, or from Spanish mission times. It is also probable that often when pueblos were abandoned, they were revisited later and the timbers torn out and brought to the new location, thus the ruins might appear more ancient than they really are. With the advent of the burro, the horse, and the iron axe, timbering became easier than in the stone age, but it was still no sinecure.

Stones are gathered from the sides of the mesa not far away, those not larger than a moderate burden being selected. The sand-rock of the mesa is soft and with a hammer-stone convenient masses may be broken off. At present there is a quarry on the Walpi mesa; the blocks gotten out by means of axes are more regular than those in the old houses, which show little or no traces of working. Between the layers of rock are beds of clay which require only moistening with water to become ready for the mason.

The architect has paced off the ground and determined the dimensions of the house, giving the arm measurement of the timbers to the logging party who, with the rest, have got the materials ready. The next step is to find the house-chief and secure from him four eagle-feather prayer-plumes. These are deposited under the four corner stones with appropriate ceremony of breath-prayers for the welfare of the house and its occupants. The plumes are dedicated to the god of the underworld, the sun, and other deities concerned with house-life. The builder then determines where the door shall be and places an offering of food on either side of it; he then walks around the site from left to right, sprinkling a mixture of *piki* crumbs and other food with tobacco along the line of the walls, singing to the sun his *kitdauwi*, "house song"; *Si-si, a-hai, si-si, a-hai*, the meaning of which has long been forgotten.

The walls are laid in irregular courses, mortar being sparingly used. The addition of plastering to the outside and inside of the house awaits some future time, though sometimes work on the outside coat is put off to an ever vanishing *mañana*. When the house walls, seven or eight feet in height and of irregular thickness from seventeen to twenty-two inches are completed, the women begin on the roof. The beams are laid across the side walls at intervals of two feet; above these and parallel with the side walls are laid poles; across these is placed a layer of rods or willow brush, and above this is piled grass or small twigs. A layer of mud comes next, and when this is dry, earth is placed on it and tramped down until hard. The roof, which is complicated and ingenious, is nearly level, but provision is made for carrying off the water by means of spouts.

When the roof is finished the women put a thick coating of mud on the floor and plaster the walls. At Zuñi floors are nearly always made of slabs of stone, but in Hopi mud is the rule. The process of plastering a floor is interesting to an onlooker. Clay dug from under the cliffs, crushed and softened in water and tempered with sand is smeared on the floor with the hand, a little area at a time. The floor may be dry and occasionally the mud gets too hard; a dash of water corrects this. When the mud dries to the proper stage, it is rubbed with a smooth stone having a flat face, giving the completed floor a fine finish like pottery. As an extra finish to the room a dado is painted around the wall, in a wash of red ocher by means of a rabbit skin used as a brush. Formerly a small space on the wall was left unplastered; it was believed that a *kachina* came and finished it, and although the space remained bare it was considered covered with invisible mud.

Before the house can be occupied the builder prepares four feathers for its dedication. He ties the *nakwakwoci* or breath feathers to a willow twig, the end of which is inserted over one of the central roof-beams. The builder also appeases Masauah, the God of Death, by an offering in which the house is "fed" by putting fragments of food among the rafters or in a niche in the door lintels, beseeching the god not to hasten the departure of any of the family to the underworld. At the feast of Soyaluna in December, the feathers, forming the "soul" of the house, are renewed, and at this season when the sun returns northward, the village house-chief visits the houses which have been built within the year and performs a ceremony over them.

A hole is left in one corner of the roof, under which the women build the mud fireplace, with its knob andirons and the column of pots with the bottoms knocked out which form the chimney. Over the fireplace, a chimney hood, usually supported on posts, is constructed of basket-work, plastered over with mud. A row of mealing stones slanted in sunken stone boxes in the floor must not be forgotten, and no one in Hopiland could set up housekeeping without a smooth stone slab to bake *piki* upon. Some of the houses have a low bench along one or two sides of the room which forms convenient seats. The windows are small, being often mere chinks, through which the curious spy without being seen. Stones are usually at hand, by means of which, and mud, windows and doors may be closed when the family go off on a rather protracted stay.

This one-room house is the nucleus of the village. When the daughters marry and require space for themselves, another house is built in front of and adjoining the first one, and a second story may be added to the original house. Thus the cluster grows, and around the spaces reserved for streets and plazas other clusters grow until they touch one another and rise three or four stories, the inner rooms being dark from the addition to the later houses and these become storage places.

While the old houses were entered from the trapdoors in the roof, the new houses have doors at the ground level and often windows glazed in the most approved style. Frequently in the march of progress doors are cut into the old houses, and the streets begin to assume the appearance of a Mexican town; but the old nucleus buried under the successive buildings rarely shows and may be traced with difficulty. In winter the people withdraw from the exposed and retire to the old enclosed rooms, huddling together to keep warm, enlivening the confinement with many a song, legend, and story.

So much for the woman builders of Tusayan, to whom all honor.*

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* One who desires to pursue this subject in more detail should consult Mendeleff's paper on Pueblo Architecture in the 8th Annual Report Bureau American Ethnology, 1886-1887.

V

AMUSEMENTS

The enviable title of "Song-Makers" has been earned by the music-loving Indians of Tusayan, and their fame as singers has gone out among all the tribes of the "Land of Little Rain." Many a less inventive Indian has come a long, wearisome journey to learn songs from the Hopi, bringing also his fee, since songs that give the singer magic power over the gods and forces of nature are not to be had for the asking, besides to their learning a man must give the full devotion of his being and sit humbly at the feet of his instructors. The land where the Hopi live may seem to furnish slight incentive to song, especially when one's ideas of the desert are of its dreariness and desolation; but when one sets foot in the sacred precincts of the mysterious desert a new revelation comes to him and he sees with these Indians that the wastes which unfold from the high mesas are full of beauty of form and brilliancy of color. Sunrise and sunset bring wonderful tints into the landscape, — the distant blue mountains, the violet cloud shadows, the tawny, whirling sand columns, the far-off thunder-storm, the vibration of the midday air, and the sparkling night sky must inspire the most prosaic mind. There comes to one in these surroundings a feeling of freedom, together with a sense of the vastness, transparency, and mystery of the desert which stir the emotions and makes the close pent life of crowded cities left behind seem but an unsubstantial dream. Here the Hopi have been always free; the isolated life on the narrow mesas brings about a close companionship and a true home-life besides. The air of the desert makes a man healthy and hungry, thus cheerfulness cannot but follow, expressed in songs that are from the soul.

It must be confessed that the impression of Indian music one draws from various sources is that it consists of whoops, yells, and odd, guttural noises, but this is far from describing Hopi music. Between the light and airy *Kachina* songs and the stirring though somewhat gruesome chants of the Snake ceremony, there is a variety of compositions to many of which the most enlightened music lovers would listen with pleasure.

The Flute music is especially pleasing. In the summer of 1896, the writer had the good fortune to witness the Flute ceremony at the Hopi pueblo of Walpi. In the course of the ritual, which is an invocation for rain, a series of songs are repeated each day for several days. To one hearing Indian music for the first time the sensation was quite novel. The chorus of priests, rattle in hand, sang in unison before the Flute altar, in a narrow, low, windowless room that greatly augmented the volume of sound. The time was set by the speaker-chief, who uniformly shook his rattle eight beats in five seconds for all the songs and for each day's songs with the accuracy of a metronome. There were three beats in each measure. The pitch was low, the range limited, and the deep, vibrant voices seemed to portray the winds, thunder, rain, the rushing water and the elemental forces of nature.

The notation is chromatic, not possible to be expressed on any instrument save the violin, or the five-hole transverse flutes which later accompanied the singing. These flutes were played in unison on the octave above the voices, and their shrill, harsh notes marred the singing. In general effect the music is minor, but frequently major motives of great beauty spring out of dead-level monotonous minors. Sometimes a major motive is followed by a minor counterpart of the same. There is much slurring, and an occasional reduplication comes in with great effect. A number of songs are monotonous, with once in a while a vigorous movement. The closing song is spirited and may truly be called beautiful. It consists of several legato verses, each closing with a turn, a rapid vibration of the rattle, and a solemn refrain. In structure and melody it resembles a Christian hymn. The music reminds one of the Gregorian chants, and to the listener some of the motives seemed quite equal to those upon which Handel built his great oratorios.

It is a pity that the many beautiful songs of Tusayan cannot be written down and preserved but this will no doubt soon be accomplished. Perhaps some genius like Liszt who gave the world the spirit of Hungarian folk-music will arise to ravish our ears with these musical expressions passed down from aboriginal American sweet singers.

While the music which most attracts our attention in Hopiland is that of the various ceremonies, there is still a cycle of songs, many in number, of love, war, or for amusement; those sung by mothers to their infants, or shrilled by the women grinding corn. The men sing at their work, the children at their play in this land of the Song Makers.

If songs are numerous beyond computation among the Hopi there are also more games conducing to their amusement than one finds among many other tribes. One may surmise that these games have been brought in by the clans that came from all points of the compass to make up the Hopi, and who must have touched elbows with other tribes of different lineage during the wanderings. All games seem to have been borrowed, and no one may, in the light of present knowledge, say when, where, and by whom any one of the typical games was invented, any more than the father of a proverb or a joke may have the parentage ascribed to him.

But the Hopi are not disturbed by such philosophical considerations and adhere to the traditional and time-honored games they know without desire for innovation. With them athletic games are most popular, are pursued with whole-souled abandon, and are accompanied with a world of noise and rough play; but the races and games connected with the religious ceremonies are carried on with due decorum. Stout shinny sticks of oak brought from the north show that the Hopi know the wide-spread sport that warms the blood of many an American boy, but, alas! there is no ice for its full enjoyment. Among other athletic sports one may reckon throwing darts, shooting with bow and arrow at a mark, or hurling the boomerang-like club, which is an ancient weapon, or even impromptu trials of skill in throwing stones or in bouts of friendly wrestling. The most amusing struggle game is the *Nuitiwa*, played by both sexes after the close of the Snake ceremony. Men and boys provide themselves with some piece of pottery or other object of value and run through the village crying "Wa ha ha! Wa ha ha!" pursued by the fleet-footed women who chase them and struggle for the prize with much laughter and shortness of breath. The men take the precaution to remove their shirts, if they value them, before they begin, for that garment is not worth a moment's purchase when the girls reach for the prize held at arm-length above the head.

Many of the sacred games are of an athletic character. Of these may be mentioned the numerous races, including the kicking race in which stones are carried on top of one foot, and the sacred game of ball. One might include in the list the bow-women of the *Mamzrauti* ceremony and basket throwers of the *Lalakonti* ceremony, since it can be seen that games are closely connected with primitive religious beliefs and may all have originated as a form of divination, or some other early attempts of man either to influence the beings or to spy into the future. It may be that some games are remnants of long-forgotten ceremonies, once of great import to early worshippers.

Of sedentary games there are a number. One like "fox and geese," called *totolospi*, is the *patoli* of the Mexicans, which is said to be in turn the *pachise* of the Hindus, and the rectangular plan of this game may sometimes be found on the rocks near the villages. There is "cup and ball," a guessing game in which four cups cut from wood and a stone about the size of a marble form the paraphernalia; and there is a game in which reed dice with markings are thrown. A set of these dice was found in an ancient ruin near Winslow, Arizona, and they are represented on an ancient bowl from Sikyatki, a ruin near Walpi.

With all these games the Hopi are not gamblers and appear to have the same aversion to it as they have to fire-water, differing in this respect from the Navaho, Zuñi, and many other tribes of Indians. Most of their games, like those of the ancient Greeks, are full of the exhilaration of life, the glow of physical training, the doing of something to win the favor of the gods.

In this account the children must not be left out. Imitating the customs of their seniors, they not only carry out the great games but also enter with abandon the childish sports of chasing, tag, ring around a rosy, ball, and other juveniles. Tops and popguns are not unknown, and if a boy has a pebble shooter made of an agave stalk with a spring of elastic wood he can go as far in mischief as ever Hopi children do, but he never fires away peas or beans, for they are too precious.

It may be well to recount here the endurance of the Hopi in their great national accomplishment — that of making long runs at record speed.

One morning about seven o'clock at Winslow, Arizona, a message was brought to the hotel that an Indian wished to see the leader of an exploring party. On stepping out on the street the Indian was found sitting on the curbstone, mouth agape with wonder at the trains moving about on the Santa Fé Pacific Railroad.

He delivered a note from a white man at Oraibi and it was ascertained that he had started from that place at four on the previous afternoon, and arrived at Winslow some time about the middle of the night. When it is known that the distance is sixty-five miles and the Indian ran over a country with which he was not familiar, the feat seems remarkable. It is presumed that he ran until it became dark and then waited till the moon rose, finishing the journey by moonlight.

On his back he carried a canteen of water wrapped in a blanket. He took only a sandwich, explaining that if he ate he could not run, and receiving the answer to the note, resumed his journey to Oraibi. Afterward it was learned that the runner reached Oraibi with the answer that afternoon, having been promised a bonus if he made the trip in one day. The distance run cannot be less than 130 miles, a pretty long course to get over in the time, and this Indian is not the best runner in Oraibi. There is one man who takes a morning practice of thirty miles or so in order to get in trim for the dawn races in some of the ceremonies, and it is said that he won in such a race some years ago, distancing all competitors.

Nothing in the whole realm of animal motion can be imagined more graceful than the movements of one of these runners as he passes by in the desert, his polished sinewy muscles playing with the utmost precision — nothing but flight can be compared with it. The Indians say that moccasins are the best footwear for travel over sandy country, as the foot, so clad, presses the loose sand into a firm, rounded bunch, giving a fulcrum for the forward spring, but the naked feet scatters the sand, and this, on experiment, was found to be true.

While excavating at Winslow one day some of the workmen looked up toward the north and cried out, *Hopi tu, Hopi tu,* "The Hopi are coming." It was some time before our eyes could pick them out, but soon three men could be seen running, driving a little burro in front at the top of its speed. These were Walpi men journeying to a creek some miles beyond Winslow to get sacred water for one of their ceremonies. Similar journeys are made to San Francisco Mountains for pine boughs and to the Cataract of the Colorado to trade with the Havasupai. The Spanish conquerors were struck with the ability of the Hopi runners, and they record that the Indians could easily run in one day across the desert to the Grand Canyon, a distince which the Spaniards required three days' march to accomplish.

Often a crowd of Hopi young men will go out afoot to hunt rabbits, and woe to the bunny that comes in reach! He is soon run down and dispatched with their curved boomerangs.

Though baseball, foot-ball, and many other athletic games of civilization have no place among the Hopi sports, of foot racing they are as passionately fond as even the ancient Greeks. Almost every one of the many ceremonies has its foot race in which the whole pueblo takes the greatest interest, for all the Hopi honor the swift runners.

This brings to mind the story of how Sikyabotoma lost his hair. Sikyabotoma, who bears the school name of John, is the finest specimen of physical manhood at the East Mesa. John is not unaware of this gift of nature, as he poses on all occasions out of sheer pride.

One cannot observe that John got anything out of his American schooling; he seemingly does not speak a word of English, and he is beyond all reason taciturn for a Hopi. It may be that John is a backslider, having forgotten or thrown over his early education and relapsed to his present state under the influence of Hopi paganism.

As runner for the Walpi Flute Society, his duty is to carry the offerings to the various shrines and springs, skirting on the first day the entire circuit of the cultivated fields of the pueblo, and coming nearer and nearer each day till he tolls the gods to the very doors of Walpi. It is no small task to include all the fields in the blessings asked by the Flute priests, since the circuit must exceed twenty miles. Each day Sikyabotoma, wearing an embroidered kilt around his loins, his long, glossy hair hanging free, stands before the Flute priests, a brave sight to behold. They fasten a small pouch of sacred meal at his side and anoint him with honey on the tip of the tongue, the forehead, breast, arms, and legs, perhaps to make him swift as the bee. Then he receives the prayer-sticks, and away he goes down the mesa as though he had leaped down the five hundred feet, his long, black hair streaming. He stops at a spring, then at a shrine, and in a very short time can scarcely be distinguished running far out by the arroyo bounding the fields. John in this role is a sight not soon to be forgotten.

This brings us to the story of John's Waterloo. At sunrise on the last day of the *Wawash* ceremony there are foot races in honor of the gods, and a curious condition of these races is that the loser forfeits his hair. Now the Hopi are like the Chinese in having an aversion to losing this adornment. A bald Hopi is a great rarity, and the generality of the men have long, beautiful locks, black as a raven's wing, washed with soap-root and made wavy by being tied tightly in a knot at the back of the head. Sikyabotoma entered the *Wawash* race with confidence, but when the runners came back on the tortuous trail up the rocks Sikyabotoma was second. A pair of sheep shears in the hands of his adversary soon made havoc with his locks. At the time this sketch was written John's hair had grown again to a respectable length.

In making his toilet as Flute Messenger, to which the writer was a witness, John found it necessary to have his bang trimmed. This service was performed by an old fellow who picked up from the floor a dubious looking brush made of stiff grass stems, moistened it with his tongue occasionally as he brushed John's hair, and finally with a pair of rickety scissors cut the bang to regulation shape.

Sikyabotoma, in spite of the drawbacks pointed out, is one of the lions of Walpi by birth; he also belongs to the first families. Divested of civilized garb, and as a winged Mercury flying with messages to the good beings, he is an object to be gazed on with admiration, disposing one to be lenient with his besetting vanity.

VI

BIRTH, MARRIAGE, AND DEATH

A blanket hangs over the usually opened door and a feeble wail issuing from within the dusky house betokens that a baby has come into the world, and awaits only a name before he becomes a member of the Hopi commonwealth. The ceremony by which the baby is to be dedicated to the sun and given a name that will bind him indissolubly to the religious system of his people is interesting from the light it casts on the customs of the Hopi and the parallels it offers to the natal rites of other peoples.

On the mud-plastered wall of the house, the mother has made, day by day, certain scratches which mark the infant's age, or perhaps reckons the time on her fingers till nineteen days have passed. The morning of the twentieth day brings the ceremony.

Meanwhile the little one has been made to know some of the trials of life. On the first day of his entrance into this arena, his head has been washed in soaproot suds and his diminutive body rubbed with ashes, the latter, it is alleged, to kill the hair, and his mother must also undergo the ceremonial head washing, which must be repeated on the fifth, tenth, and fifteenth days with the amole root, which is the only soap known to the Hopi. Besides, the mother must never be touched by the direct rays of the sun during the first five days, which explains the blanket often hung before the doorway; nor may she put on her moccasins, for fear of ill luck.

At last, on the evening of the nineteenth day, comes the paternal grandmother, who, by custom, is the mistress of ceremonies, a fact which seems a little strange, for though the child takes its descent from the mother, the father's people name the baby and conduct the ceremony. The grandmother sees to the fire and attends to the stew of mutton with shelled corn, called *nukwibi*, and the sweet corn pudding, called *pigame*, cooking for the feast in the morning. While she is bustling about, boiling a tea of juniper twigs, placing a few stones in the fire to heat for use in the morning, and pounding soaproot, the relatives are bringing plaques of basketwork heaped with fine meal as presents to the new-born. These the mother receives with the woman's words of thanks, *eskwali* — the men's word being *kwa kwi* — and invites the guests to partake of food. It is late when the relatives depart, and the mother busies herself with getting ready the return presents, adding, perhaps, with a generous hand, more than was given, while the object of all this preparation is sleeping oblivious, hidden beneath his blanket.

At the first glint of dawn the godmother arises, renews the fire, and draws with fine meal four short parallel lines on the walls, floor, and ceiling of the room, and on the lines on the floor puts a prayer feather tied to a cotton string, and above that places a bowl of amole suds. The mother kneels by the bowl, her long black hair falling in the foam, and the godmother dips an ear of corn in the suds four times and touches each time the head of the mother with the end, then bathes her head. Perhaps others of the guests who have come early for the ceremony use the suds in turn with an idea of getting some imaginary benefit; the practical benefit of cleanliness is obtained at any rate. The mother's arms and legs are bathed in the juniper tea; the heated stones placed in a cracked bowl and some of the tea thrown over them, form an impromptu sweat bath, while she stands, wrapped in a blanket, over the steam. This finishes the part of the ceremony designed for purification.

The old woman carefully sweeps up the room and puts all the sweepings in a bowl which she throws over the mesa, while another woman sprinkles water on the floor, saying, "clouds and rain," the two magic words which are often on the lips and in their thoughts. Now the baby is waked from his blissful sleep, bathed in soapsuds, and rinsed with a mouthful of water applied in the manner of a Chinese laundryman. This time it is not ashes but white corn meal with which he is rubbed, and all the company rub suds on his head with ears of corn dipped in the wash bowl. The godmother puts meal on the baby's face and neck, and, waving an ear of corn, prays over the mother and child. This is the prayer: "May you live to be old, may you have good corn, may you keep well, and now I name you Samiwiki," ("roasting ears"), or she bestows any name which strikes her fancy. All the other relatives give the baby a name and it is a matter of chance which one survives.

The naming of the baby being ended, the dedication of the child to the sun is next in order. As a preliminary, the baby is introduced to the hard lot of the cradle. The cradle may be a bent stick interlaced with twigs, a cushion of frayed juniper bark placed on it and a bow attached to the upper end to protect the baby's face. A small blanket or two form the covering. The mother tucks the little fellow in, placing his arms straight along his sides and finishes by lashing him round and round with a sash until he resembles a miniature mummy. The godmother has not been idle meanwhile. She has taken meal and made a white path out the door, and at a signal from the father, who has been anxiously watching for sunrise from a neighboring housetop, she quickly takes up the cradle and carries it low down over the path of meal, out to where the sun may be seen. The women have put on their clean mantas, the mother has arrayed herself in her embroidered cotton wedding blanket, and they stand in the clear dawn, a picturesque group of sun-worshippers. The godmother draws away the blanket from the baby's face, holds a handful of meal to her mouth, and says a short prayer over it and throws it toward the sun; so also does the mother, and the ceremony is over.

The assembly then turns to the *nukwibi*, *pigame*, and other good things, for among the Hopi a feast always follows a ceremony, just as enlightened people enjoy a good dinner after church; but before they begin the repast, a pinch of the food must be taken out and thrown by the ladder or into an inner room as an offering to the sun. The baby, being guest of honor, is first to eat of the food, though the act would seem a mere pretense. Directly he is laid aside to resume his broken slumbers while all assembled fall to with keen appetites. Soon the guests arise to depart, and receiving their "Indian gifts" return to their homes.

Custom demands, however, that other things for the welfare of the child be done. A boy should have a swift insect called *bimonnuh* tied to his wrist to make him a runner, and a girl a cocoon of a butterfly to make her wrists strong for grinding corn. Later, for some reason, a band of yucca is put on the child's wrist and ankle and left on for several days, when the child is held over an ant hill, the bands taken off and left to the ants.

It is pleasant to know that the Hopi are good to the old. In the ceremony just described they are given special gifts of food and meal, and if the grandmother is an invalid she is tenderly carried to the dedication.[1]

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[1] From Natal Ceremonies of the Hopi Indians. J. G. Owens, Journal of American Ethnology and Archaeology, Vol. II, 1892.

When the number of children born is considered, there seems to be no reason why the Hopi should not soon have a dense population, instead of remaining stationary. When more is known, though, of the unripe melons and other green things given the children to eat at their own sweet will, the wonder is that any of them ever reach the years of discretion. It is a wise provision of custom that the children are not required to wear any clothes whatever, and one soon becomes accustomed to the graceful, animated little bronzes that swarm in the quaint, terraced pueblos.

Nowhere are these little flowers of the tree of life more cunning and interesting. Like the Japanese children they seem to deserve no correction, and it is as rare a sight as green grass, in the land of Tusayan, to see a parent strike a child. Always instead there is kindness and affection worthy of the highest praise. It is refreshing to observe the association of children with their parents or near relatives, and how quiet and obedient they are. This close parental attention must be the secret of good children wherever the country may be. The Hopi children are fortunate in having many teachers who, at home or in the fields or in the country, explain to them the useful things which they should know in order to become good citizens of Tusayan. It surprises visitors to find out how much the little people have learned, not only of the birds, plants, and other sides of nature, but of their future duties in the house, the fields, and the village, and one comes to respect the Hopi kindergarten in which the children are taught through play-work and unconsciously come to "know how." Even the odd-looking dolls, which the Hopi children love with the same fervor as the rest of the little men and women of the child world, assist in teaching. These dolls, carved from cottonwood and brilliantly decorated with paint, feathers, and shells, represent the numerous beings who inhabit the spiritual world supposed to rule the destinies of the Hopi. The children are given these wooden figures to play with, and thus they learn the appearance of the gods and at the same time get a lesson in mythology.

In their sport, several little fellows armed with bows and arrows may pretend to guard the pueblo, and no doubt they have the same proud feeling in possessing these savage weapons of war as a small white boy has when master of a toy gun. Little tots scarcely able to walk will be encouraged to shoot at a target made of a bundle of sage-brush set up in the sand at no great distance, and loud is the applause from the parents and other onlookers when one of these infants bowls over the target. The girls congregate in a secluded street and play, their soft voices quite in contrast with any such group of white children. Perhaps the game is "play house," with the help of a few stones and much imagination. The moment, however, a visitor casts his eye in their direction the game is broken up and all become pain-fully conscious of his presence. Should a rain fill the water holes on the mesa the children have great sport bathing, splashing around like ducks and chasing one another. This must be a rare treat to the children, because, like Christmas, the good fortune of a rain-water bath may come but once a year.

Wherever the grown people go, the children go along, berrying, gathering grass and yucca for baskets, or seeds of the wild plants for food, watching the confield, or gathering the crops, each having a little share in the work and a good portion of amusement. One soon sees that the children of the Hopi help in everything that is going on and take care not to hinder. If a house is being built, the little ones work as hard as their elders, carrying in their baskets a tiny load of stones or earth for the building with an earnestness that is really amusing. Outside of the Hopi towns one usually finds a number of inscriptions in picture writing on the rocks. Besides the inscriptions there are many cup-shaped depressions that have puzzled more than one visitor. One day some children were seen hammering diligently on the rocks with hand-stones, and it was found that they were digging cup-cavities in the soft sandstone, perhaps making tiny play-reservoirs to catch rain water. The children may also be responsible for many of the queer pictures that adorn the smooth sides of the rocks around the villages; and who knows but that many ancient inscriptions on the Arizona rocks were cut by childish hands.

In every Hopi child's life the time comes when he must join some one of the brotherhoods or societies, which take in nearly every one in the pueblos, so that a young man to have any standing must belong to one at least of the Kachina brotherhoods. The boys during their solemn initiation are soundly whipped by the "flogger," whose name need but be mentioned to the little ones to make them scamper.

But this takes us beyond the age of tender childhood in the children's Paradise. To a children's friend the Hopi tots are a perennial joy. Their bright eyes are full of appreciation, though bashfulness may make them hide behind mother's skirts, but there is a magic word they have learned from the white people which overcomes that. A picture still dwells in the writer's mind of a little fellow who approached some visitors as near as he dared and spoke the two words of English he knew: "Hello, kente" (candy).

Although the ceremony of marriage is of small importance in comparison with the endless ceremonies of the Hopi priesthoods, yet a great deal of interest clusters around it and it is really a complicated affair. The trying antecedent stage of courtship, so amusing to those not concerned, is the same as among civilized young men and maidens. One of the first questions Hopi women ask one is, "Have you a wife?" and if the answer is negative, they express condolence and sympathy, if they do not go so far as to inquire the reason. As elsewhere, the young man must show some possession and likewise an ability to provide before he can take the step of matrimony, and of course, the most inflexible rule of all those which regulate the affairs in Hopiland is observed in making the choice of a wife — the absolute prohibition against marriage between members of the same clan. If both have the totem of the tobacco plant, for instance, it would be hopeless to think of union even if it were imaginable that such a thing would ever enter a Hopi's thoughts. There may be no relationship, but if the clan name is the same, there is an effectual bar.

One of the sure signs that matters are going smoothly is when a girl is seen combing a young man's hair, seated perhaps in the doorway where all the world may stare. This is taken to mean a betrothal, but long before this in a community where everyone's business is known, the "match" has been no secret. Hopi courtship presents advantages. No prospectively irate parents have to be asked; the Peaceful People do not put thorns in the path of true love, but let things adjust themselves in a simple, natural way. There are no first families with pride of birth or wealth, no exclusive circles or cliques, there is no bar except the totem in this perfect democracy.

When the young people decide to be married, the girl informs her mother, who takes her daughter, bearing a tray of meal made from white corn, to the house of the bridegroom where she is received by his mother with thanks. During that day she must labor at the mealing stones, grinding white corn, silent and unnoticed; the next day she must continue her task with the white corn. On the third day of this laborious trial she grinds the dark blue corn which the Hopi call back, no doubt glad when the evening brings a group of her friends, laden with trays of meal of their own grinding, as presents, and according to custom, these presents are returned in kind, the trays being sent back next day heavy with choice ears of corn.

After this three days' probation, which would indicate that a Hopi maiden must be very devoted to undertake it, comes the wedding. Upon that day, the mother cuts the bride's front hair at the level of her chin and dresses the longer locks in two coils, which she must always wear over her breast to give token that she is no longer a maiden. At the dawn of the fourth day the relatives of both families assemble, each one bringing a small quantity of water in a vessel. The two mothers pound up roots of the yucca used as soap and prepare two bowls of foaming suds. The young man kneels before the bowl prepared by his future mother-in-law as the bride before the bowl of the young man's mother, and their heads are thoroughly washed and the relatives take part by pouring handsful of suds over the bowed heads of the couple. While this ceremonial head-washing is going on, some of the women and girls creep in between the couple and try to hold their heads over the bowls while others strive to tear away the intruders, and a great deal of jollity ensues. When the head-washing is over the visitors rinse the hair of the couple with the water they have brought, and return home. Then the bridal couple each takes a pinch of corn-meal and leaving the house go silently to the eastern side of the mesa on which the pueblo of Oraibi stands. Holding the meal to their lips, they cast the meal toward the dawn, breathing a prayer for a long and prosperous life, and return to the house as husband and wife.

The ceremony over, the mother of the bride builds a fire under the baking stone, while the daughter prepares the batter and begins to bake a large quantity of paper bread. After this practical and beautiful starting of the young folks in life the mother returns to her home. But there is much more to do before the newly married merge into the staid married folks of Tusayan. The wedding breakfast follows closely on the heels of the ceremony and the father of the young man must run through the pueblo with a bag of cotton, handfuls of which he gives to the relatives and friends, who pick out the seeds and return the cotton to him. This cotton is for the wedding blankets and sash which are to be the trousseau of the bride.

The practical side and the mutual helpfulness of the Hopi come out strongly here, when a few days later the loud-voiced crier announces the time for the spinning of the cotton for the bride's blankets. This takes place in the kivas, where usually all the weaving is done by the man, and with jollity and many a story the task is soon finished. The spun cotton is handed over to the bridegroom as a contribution from the village, to be paid for, like everything else Hopi, by a sumptuous feast which has been prepared by the women for the spinners. Perhaps ten sagebrush-fed sheep and goats, tough beyond reason, are being softened in a stew, consisting mainly of corn; stacks of paper bread have been baked; various other dishes have been concocted, and all is ready when the crier calls in the hungry multitude. They fall to, like the genius of famine, without knives and forks, but with active, though not over-clean digits, at the start. When they are through, there is little left for the gaunt, half-starved dogs that scent the savors of the feast outside the door. If one desires to see the Hopi at his happiest he must find him squatted on the floor before an ample and well-spread feast.

With the spun cotton serious work begins for the bridegroom and his male relatives lasting several weeks. A large white blanket five by six feet and one four and a half by five feet must be woven, and a reed mat made in which the blankets are to be rolled. A white sash with long fringe, and a pair of moccasins, each having half a deerskin for leggings, like those worn by the women of the Rio Grande pueblos, complete the costume. The blankets must have elaborate tassels at the four corners. Shortly before sunrise the bride, arrayed in her finery, performs the last act in the drama, called "going home." It must be explained that up to this time the bride has remained in the house of her husband's people. Wearing the large white blanket picturesquely disposed over her head and carrying the small blanket wrapped in the reed mat in her hands, she walks to her mother's house, where she is received with a few words of greeting, and the long ceremony is over.

In this land of women's rights the husband must live with his wife's relatives. The children, also, are hers, taking their descent from her and are nearer kin to her brothers and sisters than to the father. The house they live in is hers, and all the corn and other food brought into its grain room. In case of domestic troubles, she alone has the right of separation and can turn the man from her door. Though this dark side of the picture is sometimes presented, the rule is that husband and wife are faithful and live happily, as becomes the Peaceful People.

It may be interesting to follow the history of the wedding costume, which plays such a prominent part in the ceremony. The moccasins are soon put to use and worn out, and thereafter the woman goes barefoot like the rest of her sisters. The sash and blankets are rolled in a mat and hung from a roof-beam in a back room. Perhaps the larger blanket is embroidered, when it becomes a ceremonial blanket, or it may be pressed into use for carrying corn and watermelons from the fields. The smaller blanket is kept as one of the most sacred possessions; the young mother puts it on only at the name-giving ceremony of her first-born, and often it enshrouds her for the last rites among the rocks below the mesa where the dead are laid away. At the farewell ceremony of the Kachinas all the brides of the year dress in their white robes and appear among the spectators, look on for a time, and then return to their homes. This review of the brides adds much to the picturesqueness of this festive occasion.[1]

There is no doubt that to the wise customs of the pueblo dwellers is due their survival in the deserts of the Southwest. One can only admire the workings of the unwritten laws which have lived from out of the experience of past centuries and continue yet to regulate the life of Tusayan.

There is no more interesting chapter of human beliefs than that which deals with the ideas entertained by primitive peoples of death and the hereafter. The Hopi, like other peoples, have thought out the deep questions of origin and destiny, peopled the mysterious spaces with spiritual beings, and penetrated the realm of the hereafter to describe the life after death. Thus they say that the breath body travels and has various experiences on its way to the underworld, and "as everyone came up from out of the *sipapu*, or earth navel, so through the *sipapu* to the underworld of spirits must he go after death. Far to the west in the track of the sun must he travel to the *sipapu* which leads down through a lake. Food must he have for the journey, and money of shell and green turquoise; hence bowls of food and treasures we place in his grave. Masauah, the ruler of the underworld, first receives the spirit. It is the spirit of a good man, straightway he speeds it along the pathway of the sun to the happy abode, where the ancestors feast and dance and hold ceremonies like those of the Hopi on the earth. Truly, we received the ceremonies from them, long ago.

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[1] The details of the marriage ceremony are taken from an article by H. R. Voth in the American Anthropologist, N. S., Vol. 2, No. 2, April-June, 1900.

If the spirit is not good, it must be tried, so Masauah sends it on to the keeper of the first furnace in which the spirit is placed. Should it come out clean, forthwith it is free; if not, on it goes to a second or a third master of the furnace, but if the third fire testing does not cleanse the spirit, the demon seizes it and destroys it, because it is *pash kalolomi*, "very not good!" Just how much of this has been influenced by later teachings is a vexed question and must be left open.

In the underworld the spirits of the ancestors are represented as living a life of perennial enjoyment. Often they visit the upperworld, and since the Hopi believe that their chief care is to guard the interests of the pueblos of Tusayan, they must be appeased by prayers and offerings in order to secure their good will.

The last offices of the dead are very simple. In sitting posture with head between the knees, with cotton mask, symbolic of the rain cloud, over the face, and sewed fast in a ceremonial blanket, the body is carried down among the rocks by two men, who have cleared out a place with their hoes. The relatives follow and without a word the body is placed in the rude grave. A bowl containing food is set near by under the rocks, and all return, the women washing their feet before entering the house.

For four days the relatives visit the grave and place upon it bowls containing morsels of food, and they also deposit there feathered prayer-sticks. At the end of four days the "breath body" descends to the underworld, whence it came, and is judged by the ordeal of fire. In a closely-built town like Walpi the house is not vacated after a death, but it would seem that this widespread custom is observed in some of the pueblos. The Navaho, in pursuance of this custom, throw down the earth-covered hogan over the dead, and in the course of time a mound filled with decaying timbers marks the spot. Hopi burial customs have not changed for centuries; they have never burned their dead, as formerly did the Zuñi and the peoples of the Gila valley. The ancient Hopi ceremonies contain almost the only records of their past history in the pottery, ornaments, weapons, and relics of bone, shell, stone, traces of prayer-sticks, cloth, baskets, and matting. These serve to give an idea of the life and arts of the ancient Americans who left no written record.

When one inquires for a person who, perchance, is dead, the Hopi say he is *shilui*, which means, "gone." On closer inquiry they may tell of the mysterious journey of the dead, through the *sipapu*, to the land of the underworld, which is below the far-off lake.

VII

RELIGIOUS LIFE

The chief feature attracting popular interest to the Hopi is the number and remarkable character of their ceremonies. These "dances," as they are usually called, seem to be going on with little intermission. Every Hopi is touched by some one of the numerous ceremonies and nearly every able-bodied inhabitant of the seven towns takes an active part during the year. This keeps the Hopi out of mischief and gives them a good reputation for minding their own business, besides furnishing them with the best round of free theatrical entertainments enjoyed by any people in the world, for nearly every ceremony has its diverting as well as its serious side, for religion and the drama are here united as in primitive times. The Hopi live and move and have their being in religion. They have peopled the unseen world with a host of beings, and they view all nature as full of life. The sun, moon, stars, rocks, winds, rain, and rivers are members of the Hopi pantheon to be reckoned with in their complicated worship.

Every moon brings its ceremony, and the cycle of the different "dances" is completed in perhaps four years; a few dances indeed may have even longer intervals, but these dances do not seem to fall in the calendar and are held whenever decided upon by the proper chief. Some of the dances alternate also, the Snake Dance, for instance, being held one year and the Flute Dance the following year. For half the year, from August to January, the actors in the ceremonies wear masks, while for the remainder of the year the dancers appear unmasked; and as every ceremony has its particular costumes, ritual, and songs, there is great variety for the looker-on in Tusayan. So many are the ceremonies, which differ more or less in the different villages, and so overwhelming is the immemorial detail of their performance, that one might well despair of recording them, much less of finding out a tithe of their meaning.

There is grouped around these dances the lore of clans in the bygone centuries, innumerable songs and prayers and rites gathered up here and there in the weary march, strewn with shells of old towns of the forgotten days. No fear that this inexhaustible mine will be delved out by investigators before it disappears utterly; the wonder is that it has survived so long into this prosaic age of anti-fable. We have here the most complete Freemasonry in the world, which, if preserved, would form an important chapter in the history of human cults, and in the opinion of enlightened men, it should have a record before the march of civilization treads it in the dust.

The searcher for truth at the bottom of the Hopi well is likely to get various answers. Seeing the importance of the sun in Hopi thoughts and rites, one feels inclined to say "sun worship," but the clouds, wind, rain, rocks, springs, rivers that enter into this paganism make for "nature worship"; then the birds and beasts give "animal worship"; the plants for food and ceremony, "plant worship"; the snake means "serpent worship," and the communion with deified ancestors shows "ancestor worship" with unmistakable plainness.

The oldest gods in the Hopi conception of the unseen world are the deified manifestations of Nature and the natural objects that force themselves to his notice. The lightning, the cloud, the wind, the snow, the rain, the water, the rainbow, the dawn, the fire, all are beings. The sun, the moon, certain planets and constellations, and the sky are beings of power. The surface of the earth is ruled by a mighty being whose sway extends to the underworld and over death, fire, and the fields; springs, rivers, and mountains have their presiding deities. Among animals also there are many gods, — the eagle, bear, deer, mountain lion, badger, coyote, and mole among the rest. Among the insects the butterfly, dragonfly, and spider are most important, the latter as the Spider Woman or Earth Goddess. She is spouse of the Sun and as mother of the warrior culture heroes of the race is revered by the Hopi. To the plants, however, the list of beings does not extend, except in few instances, as the Corn Maid or Goddess of Corn, and perhaps to the Goddess of Germs. There are beings of the six directions; a god of chance in games and of barter; gods of war and the chase; a god of the oven, and endless beings, good and bad, that have arisen in the Hopi fancy as the centuries rolled by with their changes of culture.

At some period a group of beings called *Kachinas* and new to Hopi worship was added to the pantheon. Most of these were brought in by the Badger clans, as tradition relates, from the East, which means the upper Rio Grande, and some were probably introduced during the great westward migrations of other clans from that region. The *Kachinas* are believed to be the spirits of ancestors in some part, but the *Kachina* worship is remarkable for the diversity of beings that it includes, from the representation of a tribe as the Apache *Kachina*, to the nature beings as the sun, but many of them are not true Kachinas. (See Chapter X, Intiwa, p. 227)

As might be anticipated from the fact that the Hopi are made up of clans and fragments of clans of various origin, each with its separate ideas and practices, their beliefs and customs as to the unseen world show a surprising variety and include those of lower and higher comparative rank. One idea, however, running through all the ceremonies gives a clue to their intention, obvious to any man of the Southwest, be his skin white or brown, the desire for rain so there shall be food and life. To wheedling, placating, or coercing the agencies which are thought to have power to bring rain all the energies of the Hopi are bent. Included among these petitions are prayers for other things that seem good and desirable, and the ceremonies also embrace such episodes as the installing of a chief, or the initiation of novitiates, the hunts, races, etc.

From these ceremonies, which fall under one or the other of the thirteen moons, we may select the more striking for a brief description of their more salient features.

No one can determine which ceremony begins the Hopi calendar, but perhaps the Soyaluna, celebrated at the last of December, should have the honor. Not because it nearly coincides with our Christmas, but because it marks the astronomical period known as the winter solstice, an important date which ought by right to begin the new year. Few strangers see the Soyaluna, but those who have braved the winter to be present say that it is one of the most remarkable of the Hopi ceremonies. All the kivas are in use by the various societies taking part, and while there is only a simple public "dance," there are dramatic observances of surprising character going on in the meeting places.

When the faint winter sun descends into his "south house," which is a notch in the Elden Mesa near Flagstaff, there is great activity in the Hopi pueblos, and as in our holiday season the people exchange greetings of good wishes and make presents of *nakwakwoshi*, consisting of a downy eagle feather and long pine needles tied to a cotton string. December is a sacred month when all occupations are limited and few games are allowed, so that the Soyal is at the center of a "holy truce," a time of "peace on earth and good will to men," but strangely celebrated by pagan sun-worshippers. For the Soyal is peculiarly a ceremony brought to Hopiland by the Patki people who came from the south where in past centuries they worshipped the god of day. The warrior societies of the pueblos have made this their great festival and are most prominent in its celebration.

In the principal kiva the customary elaborate ritual has been conducted for nine days by the Soyal fraternity, which is made up of members of the Agave, Horn, Singers, and New Fire societies. At one end of the kiva is placed the altar, consisting of a frame with parallel slats on which are tied bunches of grass, and in these bunches are thrust hundreds of gaudily painted artificial flowers. On the top are bows covered with cotton, representing snow clouds. Before the altar is a pile of corn laid up like a wall which has been collected in the village to be returned filled with fertility after the ceremony. Before the corn wall is a ridge of sand on which are set corn fetiches of stone and wood. The medicine bowl and many pipes, feather prayer-sticks, etc., are in position on the floor.

There is also in the Walpi ceremony a performance of the Great Feathered Serpent who thrusts his grotesque head through an orifice in the screen and roars in answer to the prayers of the priests.

After a series of musical songs accompanied by rattles, flutes, whistles, and bull-roarers, and interspersed with prayers, there is an initiation of novices. Then enters the first bird man, elaborately costumed, whose postures and pantomime imitate a bird. Next come another bird man and the Soyaluna maid who perform a strange dance, then comes Eototo, the forerunner of the *Kachinas*, bearing corn, and this episode closes with a stirring dance of the priests around the fireplace accompanied with song.

Next occurs the fierce assault by members from the different kivas on the Soyal shield-bearer. With wild yells and dramatic action they thrust their shields against the sun shield as in deadly combat, but the sun shield-bearer forces them back and vanquishes them in turn. This remarkable drama represents perhaps the driving of the sun back into his northward path, so that he may bring life to the Hopi. The Soyal public dance is performed by a *Kachina* and two *Kachina* maids and is simple compared with the elaborate, multicolored pageant of other dances. At the close of the public ceremony the corn is distributed to the villagers, and for four days consecrated pahos are placed in the shrines, some for the dead and some for increase of flocks, corn, peaches, and all good things spiritual and temporal and the people feast and are happy.

In February comes a ceremony called Powamu with its introductory ceremony called Powalawu. Some expectancy of the coming activities in the fields is in the air and hence, as the name indicates, the ceremony relates to getting ready, preparing the fields, etc. One of the chief features is the sprouting of beans in the kivas and the distribution of the sprouts to various persons. Another is the initiation of youthful candidates, accompanied by severe flogging with yucca switches at the hands of ferocious *Kachinas*. The ceremony lasts nine days and is presided over by the chief of the Powamu fraternity assisted by the *Kachina* chief. In the kivas various rites are carried on and altars of bright-colored sand are made. The most interesting event is the recital of the myth of the Powamu on which the ceremony is based. This account is given by a costumed priest who represents the *Kachina* Muyingwa, the god of germs, and relates to the wanderings of certain clans and their arrival in Tusayan.

On the ninth and last day bands of different *Kachinas* roam the village, some furnishing amusement to the people and others bringing terror to naughty children, while still others go about distributing bean sprouts or on various errands. With this ceremony the joyous season of the *Kachinas* begins. Dr. Fewkes says:[3]

> The origin of this feast dates from the adventures of a hero of the *Ka-tci-nyu-muh*, "*Ka-tci-nia* people." The following legend of this people is preserved. While the group of gentes known by this name was on its travels, they halted near the San Francisco Mountains and built houses. During this moon the hero went out to hunt rabbits, and came to a region where there was no snow. There he saw another *Ka-tci-na* people dancing amidst beautiful gardens. He received melons from them, and carrying them home, told a strange story of a people who inhabited a country where there were flowering plants in midwinter. The hero and a comrade were sent back, and they stayed with these people, returning home, loaded with fruit, during February. They had learned the songs of those with whom they had lived, and taught them in the kib-va of their own people.

The Great Plumed Serpent who appears in the mythology of many American tribes is the chief actor in the Palulukong ceremony, which is held in March. It is a serpent drama in which the sun also has high honor. The actors are masked, as the ceremony is under the control of the *Kachinas*, who are adept at theatrical performances when represented by the fertile-minded Hopi.

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[3] For an extended study of this ceremony see The Oraibi Powamu Ceremony by H. R. Voth, Publication 61, Field Columbian Museum, Chicago, 1901, and Tusayan Katcinas by Dr. J. Walter Fewkes, 15th Annual Report of the Bureau of American Ethnology.

The clans have gathered in their respective kivas, where painting of masks and other paraphernalia, rehearsals, etc., have continued for several days. In the kiva which is for the nonce to be the theater, a crowd of visitors have assembled, and in the middle of the room two old kiva chiefs sit around the fire, which they feed with small twigs of greasewood to produce an uncertain, flickering light.

The arrival of the first group of actors is heralded by strange cries from without the kiva, and a ball of corn meal thrown down the hatchway is answered with invitations to enter. The fire is darkened by a blanket held over it, and the actors climb down the ladder and arrange their properties. The fire tenders drop the blankets, and on the floor is seen a miniature field of corn made by fastening sprouted corn in clay pedestals. Behind this corn field is a cloth screen decorated with figures of human beings, corn, clouds, lightning, etc., hung across the room, and along the screen six openings masked by flaps. On either side of the screen stand several masked men, one dressed as a woman holding a basket tray of meal and an ear of corn. A song begins and the actors dance to the music; the hoarse roar of a gourd horn resounds through the kiva, and instantly the flaps in the screen are drawn up and the heads of grotesque serpents with goggle eyes, feather crest, horn, fierce teeth, and red tongues, appear in the six openings. Farther and farther they seem to thrust themselves out, until four feet of the painted body can be seen. Then as the song grows louder the plumed snakes sway in time to the music, biting at each other and darting toward the actors. Suddenly they bend their heads down and sweep the imitation cornfield into a confused heap, then raise their wagging heads as before, and it is seen that the central serpent has udders and suckles the others. Amid the roars of the horn and great excitement offerings of meal and prayers are made to the plumed serpents. The actor dressed as a woman and who represents the mother of the *Kachinas* now presents the corn and meal to the serpents as food and offers his breasts to them.

Now the song diminishes, the effigies are drawn back, and the flaps with the sun symbol painted on them let down; the blankets are again held around the fire, the spectacle is dismantled, the actors file out, and the people among whom the corn hills have been distributed wait for other actors to appear, while foreign visitors wonder at the mechanical skill displayed in constructing and manipulating the effigies.

Now Tewan actors from Hano give a remarkable buffalo dance. They wear helmets, representing buffalo heads, and are clad in black sheep pelts. In their hands they hold zigzag lightning wands, and to the beat of a drum dance with characteristic postures; with them dance a man and boy dressed as eagles, who give forth shrill bird calls. This dance is an introduction from Rio Grande Pueblos.

After them comes another group of actors clothed in ceremonial kilts and wearing helmet masks. They are called the "Stone War Club *Kachinas*" and with them are two men dressed as women; one, representing the Spider Woman, dances before the fire with graceful movements of the arms and body to the sound of singing and the beat of a drum. At the close of the dance she distributes seeds of corn, melons, and useful plants.

The fourth act is that of the Maiden Corn Grinders. First, two masked men bring down the ladder bundles containing two grinding slabs and grinding stones and arrange them on the floor. After them come two masked girls in elaborate ceremonial attire, followed in a little while by a line of masked dancers who form the chorus. At a signal the chorus begins to sing and posture while the maids grind corn in time with the song. They then leave the mills and dance in the middle of the room with graceful movements, pointing at the audience with ears of corn, while the bearers of the mill stones put pinches of meal in the mouths of the spectators.

The fifth act is somewhat like the first, except that there are two huge snakes, and several of the actors as chorus, with knobs of mud on their masks, wrestle with the snakes in a most realistic fashion and afford great entertainment.

After this act another set of performers gives a more remarkable serpent drama. Back of the field of corn on the floor are seen two large pottery vases, and, as if by magic, the covers of the vases fly back, and from them two serpents emerge, swoop down and overthrow the corn hills, struggle with each other and perform many gyrations, then withdraw into the vases. In the dim light of the kiva fire the cords by which the serpents are manipulated cannot be seen, and the realism of the act is wonderful. In other years the acts are even more startling, as when masked men wrestle with serpents which seem to try to coil about their victims. The actor thrusts one arm in the body of the snake in order to give these movements, while a false arm is tied to his shoulder. Sometimes also the corn-maid grinders are represented by joined figures surrounded by a framework. They are made to bend backward and forward and grind corn on small *metates.* At times they raise one hand and rub meal on their faces, like the Hopi corn grinders in daily life, while above them on the framework two birds carved from wood and painted are made to walk back and forth. On the day of the public dance the corn maids attended by many masked *Kachinas* grind in the dance plaza.

The Great Plumed Serpent who has control of all the waters of the earth and who frequents the springs, once, as the legend goes, caused a great flood and was appeased only by the sacrifice of a boy and girl. (See Myths.) The home of this monster was in the Red Land of the South, whence some of the Hopi clans came. Dr. J. Walter Fewkes believes that the great serpent of Mexican and Central American mythology is this same being, which shows the debt of the Hopi to the culture of the south.

Now the *Kachinas* throng the pueblos and a perfect carnival reigns with the joyful Hopi. There is a bewildering review of the hosts of the good things and bad, interwoven with countless episodes. Songs of great beauty, strange masked pageants, bright-tinted *piki* and *Kachina* bread attract powerfully three of the senses, and the Hopi enjoy the season to the full with the knowledge that the growing crops thrive toward perfection in the fields below the mesa.

The *Kachinas* are the deified spirits of the ancestors, who came from San Francisco Mountains and perhaps from the Rio Grande and other places, to visit their people. Their name means the "sitters," because of the custom of burial in a sitting posture, and they resemble "The watchers sitting below" of *Faust*. They are believed to guard the interests of the Hopi and to intercede with the gods of rain and fertility. Their first coming is in December at the Soyal ceremony, and others continue to come till August when the great Niman, or Farewell *Kachina*, is celebrated with songs, dances, and feasting.

These deified spirits, or *Kachinas*, are personated by Indians who sometimes go outside the town, dress themelves in appropriate costume, present themselves at the gate, and are escorted through the streets with great fun and frolic. Every few days there is a new arrival and a fresh festival. Each year there is something new, and the Indians rack their inventive genius to produce the most startling masks and costumes. The *kachinas* admit of any character in the extensive Hopi mythology. Almost any character from a clown to a god can be introduced, and there are songs belonging to each. Every male Hopi takes some part in the *kachinas*, and all dates and distances are cancelled when these dances are in progress.

The *kachina* dances promote sociability among the pueblos. The Walpi boys, for instance, may give a representation of a *kachina* at a neighboring pueblo in return for a like expression of good-will on some other occasion. It goes without saying that there is a friendly rivalry among the pueblos, each striving to give the best dance. Like his white brothers, the Indian works harder at his amusement than at almost anything else.

These dances also show the cheerful Hopi at his best, — a true, spontaneous child of nature. They are the most characteristic ceremonies of the pueblos, most musical, spectacular, and pleasing. They are really more worthy of the attention of white people than the forbidding Snake Dance, which overshadows them by the element of horror.

In July the *kachinas* take their flight, and with a great culminating ceremony the Hopi bid them farewell. The Niman, or Farewell ceremony, begins about July 20th and lasts nine days, like the four great ceremonies between August and November, and like them also having a regular secret ritual in the kivas. Instead, however, of one day or so of public ceremony, the Niman furnishes many surprises and sallyings forth to the amusement of the populace. Delegates hurry on very long journeys for sacred water, pine boughs, and other essentials for the use of the priests. Sad indeed is the state of the Hopi that fate detains, and strong must be circumstances that prevent his reunion with his people at this great festival.

The Niman public dances which follow the eight days of kiva rites are imposing spectacles. The first takes place before sunrise and the second in the afternoon. There are many *kachinas* in rich costumes, wearing strange helmets and adorned in many striking ways. They carry planting sticks, hoes, and other emblematic paraphernalia. A number are dressed as female *kachinas*. These furnished an accompaniment to the song by rasping sheep's scapulæ over notched sticks placed on wooden sounding boxes. The male and female dancers stand in two lines and posture to the music, and the former turn around repeatedly during the dance. The children especially enjoy the dance, because the *kachinas* have brought great loads of corn, beans, and melons, and baskets of peaches, which are gifts for the young folks, and dolls, bows, and arrows are also given them. The dance is repeated in the afternoon in another plaza, after which the procession departs to carry offerings to a shrine outside the town and the drama of the Farewell *kachina* is over.

With the coming of the different clans, each having some ceremony peculiar to itself, and held at a certain time in the year, there must have been an adjustment of interests to fit the ceremonies to the moons, as we now see in the Hopi calendar. This may explain the fusing of the Snake-Antelope ceremonies and the two Flutes, which come in August, and the assignment of the two groups to alternate years. It is to be expected also that rain ceremonies would preponderate in the Southwest, and by mutual concessions the clans making up the Hopi would arrange their rites to fit in the month when the rain-makers are needed. Thus, the women's ceremonies in September and October would not need to be disturbed, perhaps to the relief of the obscure Hopi who, like Julius Cæsar, reformed the calendar.

The Snake and Flute ceremonies of the Hopi are most widely known, since at this season of the year most travelers visit Tusayan, and besides, the Snake Dance, from it elements of horror, has overshadowed other ceremonies that are beautiful and interesting. Still, the Snake Dance is unique, and in its unfolding displays virile action and the compelling force of man over the lesser animate creation, giving to the drama a certain grandeur not observed in other ceremonies.

No form of language is capable of describing it. Those who have seen it make it an unforgettable episode in their lives. Those who have made it a study declare that the mind of man has never conceived its equal.

When the Snake and Antelope fraternities descend into their respective kivas about the middle of August, the rites commence. The events that attract popular interest begin at once on the first day, when a party of Snake priests, painted and costumed and with snake whips and digging sticks in their hands, descend from the mesa to hunt snakes in the north quarter. These men, keenly watching for snake trails, eagerly search, beating the sage-brush and digging in holes that may harbor their quarry, thrusting their hands into such places with the utmost fearlessness. At sunset, after an exhausting day's work, they return from the hunt with snakes, if they have been successful, which are transferred from their pouches into the snake jars. For four days the hunt goes on, each day to a different world quarter. If a snake is seen it is sprinkled with meal, and as it tries to escape, one of the hunters seizes it a few inches back of the head and places it in his pouch.

When the snakes, big and little, venomous and harmless, have been collected and stowed away in the jars like those used by the women to carry water, there comes the great event of snake washing. The priests assemble in the kiva and seat themselves on stone seats around the wall, holding in the hand a snake whip made of two eagle feathers secured to a short stick. On the floor dry sand has been spread out and on it a medicine bowl of water. The snakes have been placed in bags near by in the care of priests, and the snake washer, arrayed as a warrior, sets himself before the bowl, while back of him stand two men waving snake whips. A weird song begins, and the warrior thrusts his hand into the bag and draws out a handful of snakes, plunges them into the medicine water, and drops them on the sand. Then the snakes are rapidly passed to the warrior, who plunges them and casts them forth, while the priests wave their wands and sing, now low and now loudly and vehemently. Some of the snakes try to escape, but are herded on the sand field, which is for the purpose of drying them. The snakes are left on the floor for a few hours intervening before the public dance, a writhing mass, watched over by naked boys. These boys, barefoot and otherwise entirely naked, sit down on the stones and with their whips or naked hands, play with the snakes, permitting them to crawl over and under their feet, between their legs, handling them, using them as playthings, paying no more attention to the rattlesnakes than to the smallest harmless whip-snakes, creating a sight never to be forgotten. It must be admitted, however, that owing to the absolute abandon and recklessness used by the boys in handling these snakes, all of one's preconceived notions of the dangerousness of the rattlesnake entirely disappear. Occasionally, one of the snakes, being tossed to a distance of four or five feet, apparently resents the insult, but before the snake has had sufficient time to coil, it will be straightened out by one of the other boys or tossed back to its original position, and so the sport (for it was nothing less to these boys) continue, as has been stated, for more than two hours.[4]

Dr. Fewkes thus describes the Walpi snake washing:

> The Snake Priests, who stood by the snake jars which were in the east corner of the room, began to take out the reptiles, and stood holding several of them in their hands behind Su-pe-la, so that my attention was distracted by them. Su-pe-la then prayed, and after a short interval two rattlesnakes were handed him, after which venomous snakes were passed to the others, and each of the six priests who sat around the bowl held two rattlesnakes by the necks with their heads elevated above the bowl. A low noise from the rattles of the priests, which shortly after was accompanied by a melodious hum by all present, then began. The priests who held the snakes beat time up and down above the liquid with the reptiles, which, although not vicious, wound their bodies around the arms of the holders. The song went on and frequently changed, growing louder and wilder, until it burst forth into a fierce, blood-curdling yell, or war-cry. At this moment the heads of the snakes were thrust several times into the liquid, so that even parts of their bodies were submerged, and were then drawn

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[4] The Mishongnovi Ceremonies of the Snake and Antelope Ceremonies. G. A. Dorsey and H. R. Voth. Field Columbian Museum, Chicago, 1902, p. 247-248.

out, not having left the hands of the priests, and forcibly thrown across the room upon the sand mosaic, knocking down the crooks and other objects placed about it. As they fell on the sand picture three Snake priests stood in readiness, and while the reptiles squirmed about or coiled for defense, these men with their snake whips brushed them back and forth in the sand of the altar. The excitement which accompanied this ceremony cannot be adequately described. The low song, breaking into piercing shrieks, the red-stained singers, the snakes thrown by the chiefs, and the fierce attitudes of the reptiles as they lashed on the sand mosaic, made it next to impossible to sit calmly down, and quietly note the events which followed one after another in quick succession. The sight haunted me for weeks afterwards, and I can never forget this wildest of all the aboriginal rites of this strange people, which showed no element of our present civilization. It was a performance which might have been expected in the heart of Africa rather than in the American Union, and certainly one could not realize that he was in the United States at the end of the nineteenth century. The low weird song continued while other rattlesnakes were taken in the hands of the priests, and as the song rose again to the wild war-cry, these snakes were also plunged into the liquid and thrown upon the writhing mass which now occupied the place of the altar. Again and again this was repeated until all the snakes had been treated in the same way, and reptiles, fetiches, crooks and sand were mixed together in one confused mass. As the excitement subsided and the snakes crawled to the corners of the *kiva*, seeking vainly for protection, they were pushed back in the mass, and brushed together in the sand in order that their bodies might be thoroughly dried. Every snake in the collection was thus washed, the harmless varieties being bathed after the venomous. In the destruction of the altar by the reptiles the snake *ti-po-ni* stood upright until all had been washed, and then one of the priests turned it on its side, as a sign that the observance had ended. The low, weird song of the Snake men continued, and gradually died away until there was no sound but the warning rattle of the snakes, mingled with that of the rattles in the hands of the chiefs, and finally the motion of the snake whips ceased, and all was silent.

On the previous day the Antelope society had celebrated its race and public dance, which duplicate those of the Snake society, except that the former take first place, and instead of snakes, the priests dance about, the leader holding a bundle of cornstalks in the mouth.

Now comes the stirring dawn race of the Snake society. The race is from a distant spring to the mesa and is full of excitement, filling one with surprise at the endurance of the runners. The winner will arrive at the kiva, breathing more freely, perhaps, than usual, but showing almost no traces of his strenuous efforts, and will wait quietly for the award of the prize. In the kiva meanwhile the priests have been enacting a drama of the Snake legend.

After a few hours, when the sun is getting low, the Antelope priests file out and after circling the plaza stand in line awaiting the Snake priests, who advance with tragic strides. They circle the plaza three times, each stamping on a plank in front of the cottonwood bower, *kisi*, to notify the denizens of the underworld that a ceremony in their honor is progressing. They face the Antelope chorus, the rattles tremble with a sound like the warning of the rattlesnake, and a deep, low-toned chant begins like a distant storm. The chant increases in volume, the lines sway, then undulate backward and forward, and at last, in a culminating burst of the chant, the Snake men form in groups of three and dance around the plaza with a strange step like a restrained leap. The snakes have been placed in the *kisi* in care of the passer hidden among the boughs. As the trios in succession arrive before the *kisi* the carrier drops to his knees, secures a snake which he grasps in his mouth, rises and dances around in a circular path four times, when the snake is dropped to the ground and is picked up with lightning rapidity by the third member of the trio who retains the squirming reptile in his hands. Thus these groups of *demons* circle until all the snakes have been carried. The chant ceases; a priest draws a cloud symbol in white meal on the rock floor of the mesa, and with wild action the gatherers throw the snakes on the meal; a fierce scramble ensues, and in a moment one sees the priests running down the trails to deposit their brothers among the rocks a mile or so away.

After all, no ceremony goes on in Hopiland without the aid of the gentler sex. While the dance has focussed the attention of every eye a group of maids and matrons, neat and clean as to hair and costume, and holding trays of sacred meal, have sprinkled the dancers and snakes as they passed by. The Antelopes take up their line, march around the plaza the required number of times, file away to their kiva, and the public dance is over. Those who wish, however, go to the mesa side to see the effects of the powerful emetic taken by the Snake priests as a purification. At Walpi, the old Snake Woman, Saalako, brews the medicine, and she knows how many black bettles must be stewed in this concoction of herbs. Last, but not least, comes the feast consumed with the appetite of youth amid general rejoicing if the August rain cumuli burst over the fields. For several days after the Snake Dance the young and not too old play jolly comes the feast consumed with the appetite of youth, childlike simplicity.

A bite from a venomous snake so rarely occurs that there is no eye witness, so far as is known, to such happening. The fangs are not extracted, nor are the snakes stupefied. Careful handling and the herding of the reptiles with others of their kind before the ceremony perhaps give the explanation.

The Snake Ceremony, whose wild scenes rack the nerves of the onlooker, is a prayer for rain and is based on a legend whose sentiment might be applauded if the other passive actors were not subject to an instinctive enmity. Snakes are blood brothers of the Hopi Snake clan.

The legend relates that a youth, having the curiosity to know where the waters flowed, embarked in a hollow log, closed except a small orifice, and went down the Great Colorado to its mouth, thus antedating the perilous feat of Major Powell by a long time! Here he found the Spider Woman, who prompted him in his dealings with the people living there. After many strange adventures, during which he was taught the rites now practiced by the Snake society, he won the daughter of a Snake chief and brought her to his country. The first fruits of this union were snakes, who bit the Hopi and who were driven away on this account. Later, children were human, and with them originated the Snake clan, whose wanderings brought them at last to Walpi; and tradition affirms that they were among the first arrivals there.

The Flute Ceremony, which alternates with the Snake-Antelope Ceremony, is most pleasing and interesting. Visitors to Hopiland in August of the proper year are always charmed with the dramatic performance and beautiful songs of the Flute society. In Walpi there is only one priesthood of the Flute, but in other pueblos of the Middle Mesa and in Oraibi there are two, one of the Blue Flute and the other of the Gray Flute.

On the first day the sand altar is made and at night the songs are begun. Within the kiva the interminable rites go on, and daily the cycle of songs accompanied with flutes is rehearsed. A messenger clad in an embroidered kilt and anointed with honey runs with flowing hair to deposit prayer-sticks at the shrines, encircling the fields in his runs and coming nearer the pueblo on each circuit. During the seventh and eighth days a visit is made to three important springs where ceremonies are held, and on the return of the priests they are received by an assemblage of the Bear and Snake societies, the chiefs of which challenge them and tell them that if they are good people, as they claim, they can bring rain.

After an interesting interchange of ceremonies the Flute priests return to their kiva to prepare for the public dance on the morrow. When at 3 A. M. the belt of Orion is at a certain place in the heavens the priests file into the plaza, where a cottonwood bower has been erected over the shrine called the entrance to the underworld. Here the priests sing, accompanied with flutes, the shrine is ceremonially opened and prayer-sticks placed within, and they return to the kiva. At some of the pueblos there is a race up the mesa at dawn on the ninth day as in other ceremonies.

On the evening of the ninth day the Flute procession forms and winds down the trail to the spring in order: a leader, the Snake maiden and two Snake youths, the priests, and in the rear a costumed warrior with bow and whizzer. At the spring they sit on the north side of the pool, and as one of the priests plays a flute the others sing, while one of their number wades into the spring, dives under the water, and plants a prayer-stick in the muddy bottom. Then taking a flute he again wades into the spring and sounds it in the water to the four cardinal points. Meanwhile sunflowers and cornstalks have been brought to the spring by messengers. Each priest places the sunflowers on his head and each takes two cornstalks in his hands, and the procession, two abreast, forms to ascend the mesa. A priest draws on the trail with white corn meal a line and across it three cloud symbols. The Flute children throw the offerings they hold in their hands upon the symbols and advance to the symbols, followed by the priests who sing to the sound of the flutes. The children pick the offerings from the ground with sticks held in the hand, and the same performance is repeated till they stand again in the plaza on the mesa before the cottonwood bower, when they sing melodious songs, then disperse.

The Flute legend, of which the ceremony is a dramatization, relates that the Bear and Snake people in early times lived along the Walpi. The Horn and Flute people came that way and halted at a spring. Not knowing whether other people lived in their neighborhood, they sent out a spy who returned and reported that he had seen traces of other peoples. The Flute people set forth to find them, and so they came to the Walpi houses, halting at the foot of the mesa and moving up the trail, as in the ceremony, with songs and the music of flutes.

The Walpi people had drawn a line of meal across the trail, closing it from all comers, and demanded whence the Flutes were going and what they desired. Then the Flute chief said:

"We are of your blood, Hopi. Our hearts are good and our speech straight. We carry on our backs the tabernacle of the Flute Altar. We can cause rain to fall." Four times they challenged the Flute people as they stood before the line of meal and four times this reply was given. Then the Walpians erased the meal barrier and the Flutes passed into the pueblo, set up their altar, sang the cloud-compelling songs and brought the welcome rain. Then the Bear and Snake chiefs said, "Surely your chief shall be one of our chiefs."

It will be seen that this legend, collected by Dr. J. Walter Fewkes, is enacted in the ceremony just described. And the Flute priests also think they are more successful rain makers than the Snake-Antelope priests, and do not hesitate to so declare.[5]

In the September moon the Hopi women of five of the pueblos hold a celebration of their own, which is not the least interesting ceremony in the calendar. It is called the Lalakonti, and like the other ceremonies of this part of the year extends over nine days. Sometimes it is called the Basket Dance — from the great use made of the sacred plaques in the ceremony — a quite appropriate use, since these baskets are peculiarly the product of women's taste and skill. The details of the kiva rites, such as *paho* making, the construction of a sand altar, initiation of novitiates, dispatching of messengers, songs, etc., need not be entered into, since they belong to all the ceremonies and have much in common.

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[5] The Walpi Flute Observance, Dr. J. Walter Fewkes, Jour. Am. Folk-Lore, Vol. 7, Oct.-Dec., 1894.

On the morning of the fourth day, if one is up at the faintest dawn he may see a procession emerging from the kiva and marching single-file to deposit, with much ceremony, offerings at a shrine. At six in the evening of the eighth day a picturesque procession winds down the trail among the rocks to the sacred spring, where *pahos* are planted and rites performed. Then comes the stirring event, the race up the trail to the kiva. Under the supervision of an old priest an even start is made and the women run up the trail. As Hopi women in contrast with the men are stout, the chances are that a lithe, clean-limbed young girl will win the goal over her breathless sisters.

At daybreak on the ninth day the Lalakonti race is eagerly awaited by the spectators and by the Lakone maid, who stands gorgeously costumed, basket in her hand, on the trail by which the runners will come. As the dawn brightens, they may be seen, mere specks on the trail over the plain, and soon they run up the trail to the villages amid great excitement and applause for the winner. The priestesses have marched to the dance plaza, where they form a circle, and as the racers come they rush through the circle and this act of the drama is over. Later in the day comes the public dance, when the circle of priestesses, each carrying a basket plaque, again forms in the plaza and begins singing in chorus. The baskets are held in the two hands with concave side to the front, and as the song continues the women sway their bodies and raise the baskets slowly, first to one breast, then to the other, and finally bring them downward to a line with the hips. In a short time two gorgeously decorated maidens, wearing ceremonial blankets and having bundles on their backs, advance within the circle. All interest is centered in them as they untie their bundles and stand for a moment at opposite sides of the circle, holding up in their hands a basket, and then crossing back and forth and exchanging places. All at once they throw their baskets high in the air and into the crowd of young men. Then begins a titanic struggle that would put a football melee in the shade. Fiercely they wrestle, till out of the squirming, perspiring, now ragged mass emerges the lucky young man with a much damaged basket for his prize. Sometimes these struggles last a long time, but there is no slugging and no blood is spilt, and there is a great deal of jollity. This closes the Lalakonti ceremony and the celebrants return to their homes to take up their ordinary avocations. Supela is one of the two men who aid the women in the Lalakonti ceremony, and he also has an important place in the Mamzrauti ceremony, described below, of which his wife, Salako, is the chief priestess.

The Mamzrauti ceremony, held at the October moon, is a harvest dance, and fortunate are the Hopi when they can celebrate it with joyful heart and abundant feasting. The Mamzrau resembles in many points the Lalakonti, but the differences are more important. A sand picture is made, a frame of painted slabs erected back of it, and fetiches placed around the medicine bowl and sand picture. Novices are initiated in a tedious ceremony lasting through several days, and messengers are sent to springs and shrines to deposit prayer-stick. There are ceremonial head washings as in other ceremonies, and various secret rites are performed in the kiva. On the fourth day the final initiation of the novices takes place, and the priestesses dance around a pile of peaches on the kiva floor, and, what is more, enjoy a good feast of this prized fruit. On the sixth day a public dance is held by actors who imitate certain *kachinas*, and on the seventh day, just at sunset, the priestesses, some disguised as men, dance the spirited buffalo dance. On the eighth day, disguised as clowns, they parade around the pueblo and are attacked by the men who throw water none too clean and various unpleasant things upon them, and after much noise and fun, the women run home.

There is no dawn race on the morning of the ninth day, but early the priestesses have donned their costumes and assemble in the court where they dance and throw green cornstalks among the men who crowd around. Later in the day comes the concluding dance, when the celebrants, holding gaily painted slabs of wood in each hand, march into the plaza and form a horseshoe figure with the opening toward the east. From the kiva now come two women dressed as men, having bows and arrows in their hands. As they advance they throw before them a package of corn husks and shoot their arrows at it, the act representing lightning striking and fertilizing the fields. Thus they advance by stages to the circle of dancers and throw the bundle in their midst, shooting at it, then shooting two arrows in the air they return to the kiva. In a few minutes they appear again, carrying trays of dumplings of sweet corn meal which they toss one by one to the eager spectators. Then the circle of dancers disperse, but again and again throughout the day, the distributors return to dispense their offerings. At sunset, the sand pictures, fetiches, and altar slabs are removed by Saalako and the Mamzrau is over.

At night there is a serenade by two parties of men, each party singing loudly as though to drown the voices of the other. This serenade is said to be in honor of the women for their pious celebration of the Mamzrau.[6]

One of the most complicated ceremonies of the Hopi is the New Fire, which occurs in November at five of the pueblos. Every fourth year the ceremony is extended by the initiation of novices, but in ordinary years it is abbreviated. Four societies take part and these include almost every male adult in the villages, so there is no lack of performers.

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[6] The Mamzrauti: A Tusayan Ceremony, by J. Walter Fewkes and A. M. Stephen, American Anthropologist, Vol. 5, No. 3, July, 1892.

The first event that is noteworthy is the making of new fire by two of the societies. Two pairs of fire makers each place a piece of cottonwood on the kiva floor and drill upon it with a slender rod revolved between the palms of the hands, until the friction of the drill on the wood ignites the dust which has been ground off. The little coal of fire is fed with shredded bark until flame is produced; from this the fuel on the kiva fireplace is lighted and with a bark fuse is carried to the kivas of the three other societies. This fire is sacred and no one may blow upon it, or take a light from it, and after the end of the ceremony it is suffered to go out and the ashes are thrown over the mesa with prescribed rites. Sacrifices of pine needles are made to the sacred fire soon after it is kindled. Most of the Hopi are familiar with the ancient method of making fire by the friction of wood, and it is not many years since they knew no other way. Now matches of a particularly sulphurous variety are easy to get, and the primitive fire drill is in force only in the New Fire ceremony.

From day to day there are processions of the celebrating societies, who dance through the pueblo, forming a line with locked hands and moving with a sidelong halting step forward and backward, while the women from the houses drench them with water and shout rude jests. At night there are patrols of the celebrants, who ring cowbells or beat on tin cans and make night hideous. The novices take their nocturnal rounds at breakneck speed led by a priest, somewhat in the way of a college initiation. These poor fellows have a hard life of fasting and vigils; one of their ordeals is to go to a mountain about fifteen miles away to dig soap root and white earth with which they return gaunt and worn.

This ceremony presents more life and public exhibition than almost any other in Hopiland, hence a description of it in brief compass is impossible. To an onlooker it must exhibit a chaos of acts by the four powerful fraternities that perform it, a bewildering pageant by day and alarms and sallying forth by night, with rites also in progress in all the kivas.

The meaning of the New Fire Ceremony is obscure, but it seems in our present knowledge to be a prayer to the Germ God for fertility of human beings, animals, and crops. The Germ Gods, earth gods, and fire gods are to be placated and honored by these rites, and no doubt the new fire ceremonies of all times and peoples were held with such intent, for the relation of life and fire was a philosophic observation of the remote past. With this ceremony the round of the year has been finished and the Hopi are ready to begin again.[7]

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[7] The Naac-nai-ya. By J. Walter Fewkes and A. M. Stephen; Jour. American Folk-Lore, Vol. 5, 1892. The Tusa-

The Yayawimpkia are fire priests who heal by fire. They are experts in the art of making fire by drilling with a stick on a bit of wood and they perform this act in the Sumaikoli or Little New Fire Ceremony. There are few of them remaining, and their services are sometimes called for when a burn is to be treated, or some such matter. One woman whose breast had been blistered by a too liberal application of kerosene was healed by the Yaya, who filled his mouth with soot and spurted the fluid over the burn, the theory of the Yaya being that wounds made by fire should be checked by fire or the products of fire.

The Yaya priests are supposed to be able to bring to life people who have been killed in accidents. There is a story that a man who was pushed off the high mesa upon the rocks below was restored to his friends by the magical power of the Yaya. Other fabulous stories, always placed among the happenings of the past, tell of the wonderful doings of the Yaya. The Hopi relate that one Yaya standing at the edge of the mesa said: "Do you see that butte over yonder [the Giant's Chair, 30 miles distant]; it is black, is it not? I will paint it white." So with a lump of kaolin the Yaya made magical passes skyward, and behold, the mountain was white! A brother Yaya said,

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yan New Fire Ceremony, by J. Walter Fewkes; Proc. Bost. Society Nat. Hist., Vol. 26, 1895. The New Fire Ceremony at Walpi, by J. Walter Fewkes; Am. Anthropologist (N. S.), Vol. 2, Jan., 1900.

"I will make it black again!" So with soot he made magical passes horizonward, and behold, the butte resumed again its natural color!

Notwithstanding the style of these stories, of which there are many, the fire-priests do perform wonderful feats of juggling and legerdemain, especially in winter when abbreviated ceremonies are held. On account of these performances of sleight-of-hand and deception the Hopi are renowned as jugglers and have a reputation extending far and wide over the Southwest.

Besides the Yaya there are many other medicine men, or shamans, who relieve persons afflicted by sorcerers.

The sufferer believes that a sorcerer has shot with his span-long bow an old turquoise bead or arrowhead into some part of his body. He, therefore, summons one of his shamans to relieve him. A single shaman is called *Tu hi ky a*, "the one who knows by feeling or touching." The first treatment adopted to relieve the sufferer is to pass an eagle feather, held by the shaman in his fingers, over the body of the afflicted person until the shaman asserts he feels and locates the missile.

The term applied to more than one of these shamans is Poboctu or eye seekers. In the concluding part of the conjuring, in which more than one person usually engages, the shamans move around peering and gazing everywhere, until they determine the direction in which the malign influence lies. I have been informed by Mr. Stephen that he saw them engaged over a victim in Sitcumovi many years ago and that they cleverly pretended to take out of the sufferer's breast a stone arrowhead half the size of the hand.[8]

One may chance to see, even yet, a patient being treated for headache or some minor ailment. The method is very like massage, the eyebrows, forehead, temples and root of the nose being rubbed with straight strokes or passes, with occasional pressure at certain points, while a preternatural gravity is maintained by the operator.

The Hopi ideas and customs as to animals connected with their religious observances form an interesting and picturesque feature of their life. An account of some of the more striking customs in this regard follaws:

A few years ago a story went the rounds about a Hopi and his eagle which a Navaho had taken. It was related that the Hopi hurried to the agent with his grievance and secured a written order commanding the Navaho to restore the bird. With considerable temerity the Hopi presented the "talk paper" to the lordly Navaho, and as might have been expected got no satisfaction. This story produced a great deal of amusement at the time, but no one realized that there was embodied history, folk-lore, religious custom, tribal organization, archeology, and a number of other matters recently made clear by Dr. J. Walter Fewkes.[9]

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[8] Dr. J. Walter Fewkes, Journal of American Ethnology and Archaeology, Vol. II, Boston, 1892, p. 157.

[9] Property-Right in Eagles among the Hopi; Am. Anthropologist, N. S., Vol. II, Oct.-Dec., 1900.

It transpired that the Navaho had not bodily and by force seized an eagle which the Hopi had captured by his craft, though one not knowing the relations between those desert neighbors might have so thought. On the contrary, the Navaho had taken the eagle from an eyrie on a mountain many miles away from the Hopi villages, not dreaming of poaching on anyone's preserves.

He would probably care as little to know that the Snake clan claims the eagle nests near their old village of Tokonabi to the north of Walpi; the Horn clan those to the northeast; the Firewood clan those at the upper end of Keam's Canyon; the Bear clan those at the mouth of the same canyon; the Tobacco clan those on the crags of Awatobi; the Rain Cloud clan the nests in the Moki Buttes; the Reed clan those in the region of their old town forty miles north of Navajo Springs on the Santa Fé railroad; the Lizard clan the nests on Bitahuchi or Red Rocks, about forty miles south of Walpi; or that the eagle nests west of the pueblos along the Little Colorado and Great Colorado belong to the Oraibi and Middle Mesa villagers. He would disdain the fact that one cannot meddle with eagles within forty or fifty miles of the Hopi towns without trespassing on property rights.

The curious fact comes out that these eagle preserves are near the place of ancient occupancy of the clans, and show in a most interesting way the lines of migration by which the several clans traveled to the villages where they now live. These rights are jealously guarded by the Hopi and are one of the sore spots in their relations with the Navaho; they frequently ask to have the Government define their eagle reservations by survey to establish the boundaries free from molestation.

It may be well to say here that the eagle is a Hopi sacred bird and one of the most important. Its feathers, like those of the turkey, parrot, and other birds, are of especial use in the religious ceremonies. The downy plumes moving at the faintest breath are thought to be efficacious in carrying to the nature gods the prayers of their humble worshippers.

Among the sacred hunts that of the eagle was one of the most ancient as well as important. Small circular stone towers about four feet in height were built and across the top were laid beams to which were tied dead rabbits as a bait. Perhaps the mysterious towers of the Mancos and of the north in Colorado may be explained in this light. Within the tower the hunter hid after a ceremonial head washing symbolic of purification, and the deposit of a prayer-offering at a shrine. The eagle, attracted by the rabbits, circled around and at last launched himself upon his prey. When he had fastened his talons in a rabbit the concealed hunter reached through the beams and grasped the king of the air by the legs and made him captive, taking him to the village where a cage was provided for his reception. At each hunt one eagle was liberated after a prayer-stick had been tied to his thigh in the belief that the bird would carry the prayer to the mighty beings with whom he was supposed to be on familiar terms.

This describes the method pursued formerly and which some of the old men have witnessed. Now the Hopi eagle hunters take upon themselves the difficult and somewhat hazardous task of visiting the eyries to seize the eaglets. Not all are taken from the nest, since a wise prohibition requires that some be left to continue the species. The eaglets are brought to the pueblo, where their heads are washed with due ceremony, and they are sprinkled with sacred meal. Then the feathers are plucked out and the birds are killed by pressure on the breastbone so as not to shed blood, and they are buried in a special cemetery in a cleft among the rocks where a few stones are put upon the bodies after the ritual. At the close of the ceremony of the departure of the gods, called the Niman, or Farewell ceremony, small painted wooden dolls and little bows and arrows are placed upon the eagle graves and liberally sprinkled with sacred meal.

But this does not end the Hopi eagle customs. Near the school at Dawapa, below Walpi, one may stumble upon a collection of oval objects of wood, placed among rocks, some weathered and some bearing traces of spots of white paint and feathers. He may learn also that this is an eagle shrine and that these wooden eggs are prayers for the increase of eagles prepared during the Soyaluna or Winter Solstice ceremony. At present figurines of the domestic animals are also offered for the same purpose. Perhaps we have here a step toward the domestication of animals which was carried out with the turkey, parrot, and dog. In any case, however, there is shown the veneration of the Hopi for the birds of the air and especially the eagle, which is honored in the symbols of so many peoples.

Among the sacred animals of the Hopi the turkey is of great importance. In accord with the belief that the markings on the tail feathers were caused by the foam and slime of an ancient deluge, the feathers are prescribed for all pahos; since through their mythical association with water they have great power in bringing rain. The Spanish Conquerors of the sixteenth century when they visited the pueblos spoke of "cocks with great hanging chins" they saw there, and this is the first notice of the bird for which the world is indebted to America. In the villages turkeys roam around without restraint and become household pets. Sometimes also they dispute the entrance of a village by a stranger and put him to a great deal of annoyance by their attacks, which are usually in the nature of a surprise from the rear. At present the Hopi keep them for their feathers, which are plucked as occasion requires, so that the village turkey commonly has a ragged appearance.

There were ceremonial antelope hunts before cattle and horses destroyed the grass on the ranges and while these members of the deer tribe were plentiful. One of the most beautiful flowers of the Southwest, the scarlet gilia, is thought to be especially liked by the antelope, and tradition says that for this reason the hunter formerly ground up the flowers with sacred meal and made offerings with it for success in hunting that graceful animal. Remains of extensive stake fences and corrals built by the Navaho for driving the antelope are to be seen south of the Hopi Reservation. One of these is called the "Chindi corral," because the Navaho say that in the last great hunt those who ate of the antelope captured were made sick and many died. Hence no Navaho will camp in this bewitched corral or use a piece of the wood for camp fires, no matter how great the necessity.

The Hopi sometimes hunted the antelope by driving, but usually relied on surprise, fleetness of foot, the bow and arrow, and the boomerang. No doubt the deer and great elk were ceremonially hunted in the old days of tradition. There is little reason to believe that the Hopi vegetarians have for centuries gained more than a flavor of animal food to vary their diet. Formerly the antelope must have been more important, though always difficult to capture. Now, the Hopi perforce hunt rabbits, as the *tabo* or cottontail and the *sowi* or jackrabbit alone of all the game animals survive in this region.

If one chances to see a hunting party set out or to encounter them in active chase he will have a novel experience and wonder what all the screaming, barking of dogs, and running hither and thither mean, if he does not fear that he has met the Peaceful People on the warpath. The hunters smeared with clay present a strange appearance. In their hands they carry bow and arrows, boomerangs of oak, and various clubs and sticks. One of the party is delegated to carry the rabbits, and he usually rides a burro. In and out among the rocks of the mesa sides they skirmish like coyotes and with quite as fiendish noise. Rabbits have little chance unless they take to earth, and even then the Hopi stop to dig or twist them out. Such a hunt means sixty or seventy miles, perhaps, of hard work before the hunters dash up the home mesa with their game to "feed the eagles" or for some other ceremonial purpose.

Some of the ceremonial hunts bring out as many as a hundred Hopi, and in such case those on horse or burro or afoot drive the rabbits into a narrowing circle and close in with an exciting melee that displays more energy than a football game. If for any reason the rabbits are scarce and the result of a hunt is small, the Hopi return somewhat dejected and have little to say, but if the *sowimaktu* has been a success they make a triumphant entry with much shouting and exultant song.

In walking about the pueblos one sees many things connected with the religious life of the Hopi, especially shrines. An account of the more notable of these may prove of interest.

It is not often granted one to stand at the center of the world. The feeling ought not to be different from that occasioned by standing at any other place on the earth, but in the presence of the shrine by which the Walpians mark that mysterious spot a number of inquiries spring up in the mind. At Jerusalem, at Mecca, and at perhaps a hundred other places are authentic earth centers, each fixed by edicts of church or the last word of wise men and upheld against all comers. The disputes over the center of the world in the times before men knew that the world was round are amusing to enlightened nineteenth century people.

The Hopi felt the need of an earth center just as other benighted folks did in early times, so beneath the mesa cliffs among the rocks they placed their shrine and bestowed their offerings. Just what the Hopi believe about this particular shrine no doubt would be very interesting.

Other shrines abound near each pueblo and are likely to be happened upon in out-of-the-way places among the rocks where the offerings are scattered about, some new with fresh paint and feathers and some much weather-worn. Near the Sun Spring at Walpi there is a spot where many rounded blocks of wood lie on the ground. This is the Eagle Shrine and the bits of wood represent eagle eggs; the green paint and cotton string with the prayer feather decorating them soon disappear in the sun and wind.

While it is not good policy to pry around these sacred places, knowing that the keen eyes of the Hopi watch from the mesa top, yet casually some of the more interesting shrines may be visited.

At the point of the Walpi mesa where the old town stood several centuries ago, are several shrines, to one of which the *kachinas* after the ceremonies go in order to deposit their wreaths of pine brought from the San Francisco Mountains and to make "breath-feather" offerings of paint and meal. Here also they make offerings of food to the dead. At another spot the bushes are hung with little disks of painted gourd, each with a feather representing the squash flower.

A heap of small stones is a Mas a uah shrine, and a stone is added by each one who passes as an offering to the terrible god of the earth, death, and fire. No orthodox Hopi would dare to omit throwing a stone accompanied with a prayer to Masauah, of whom all speak in fear and with bated breath. For a good reason, then, many shrines to this god may be seen in Hopiland, as it is necessary to appease this avenging being.

Everyone who goes to Walpi sees the great shrine in the gap which is called the "shrine of the end of the trail." The base and sides are large slabs of stone, and within are various odd-shaped stones surrounding a coiled fossil believed by the Hopi to be a stone serpent. During the winter Sun ceremony this whole stone box blossoms with feathered prayer-sticks, almost hiding the shrine, and converting it into a thing of beauty.

Other holy places, most of them ruins of abandoned towns, are visited at times by this people, who cheerfully make long journeys to mountains and running streams for sacred water, pine boughs, or herbs. They carry with them feather prayer-sticks and sacred meal as offerings to the gods of the place. One of the streams from which holy water is brought is Clear Creek near the town of Winslow, seventy-five miles south of Walpi.

Each field has a shrine and *pahos* are often seen there; this is also the custom among the Zuñi and other of the Pueblos. In the center of the main plaza of each pueblo may be seen a stone box with a slab of stone for a door which opens to the east. This is called the *pahoki*, or "house of the pahos," the central shrine of the village, and it is carefully sealed up when not in use.

It is to be expected that the shrines of the ancient pueblos would have vanished, and it is true that such remains are the rarest encountered in exploring ruins. Still a few traces reward a careful search in the outskirts of many of the ruins. A shrine made of slabs of stone painted with symbolic designs of the rain cloud was found at the ancient town of Awatobi, and is now in the National Museum.

In caves and rock recesses of the mesas are deposits of the sacred belongings of the societies. These places, while not shrines perhaps, are kept inviolably sacred, and no curious white visitors have peered into them, even those highest in the good graces of the priests.

Once by chance two explorers came upon such a treasure house and with some trepidation took a photograph of it. In a dark cleft under the rocks were the jars in which the "snake medicine" is carried. These were arranged without much order near a most remarkable carved stone figure of *Talatumsi*, the "dawn goddess," painted and arrayed in the costume of that deity. In truth, this little cavern had a gruesome look, and knowing also the prohibition against prying, one breathed more freely on getting away from the neighborhood.

Though the Hopi may have no house shrines, and this is said with caution, because not much is known of their domestic life, yet in some of the houses are rude stone images which are venerated. These images may be household gods like the Lares and Penates of the ancients. No one would be surprised to know that the Hopi hold the fireplace sacred and make sacrifice to it as the shrine of Masauah, the dread ruler of the underworld.

So while our towns have interesting churches and historical buildings, none of them can compete with the high houses of the Hopi surrounded by primitive shrines to the nature gods, who, in their simple belief, protect the people and send the rains which insure abundant harvests.

VIII

MYTHS

As yet the myths of the Hopi have not been systematically collected, hence our view of the deeper workings of the Hopi mind is a limited one. No observer familiar with the language has lived with the Good People in order to hear from the wrinkled sages the tales of beginnings and the explanations of things that must be stored in their minds, if the fragmentary utterances that are extant may give indication. A few myths collated principally from the writings of Dr. J. Walter Fewkes are given as examples, displaying the range and depth of the imagination of these Indians.[16]

In the early days when the world was young, many monsters, most of whom were hostile to man, roamed the earth or infested the sky, and particularly harassed the Hopi. These monsters were gigantic in size and possessed special weapons of tremendous power to assist them in their supernatural craft. Long the people groaned under the ravages of the monsters, and the time and manner of their deliverance they delight to recount in many weird stories during the winter nights by their flickering fires of piñon wood.

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[16] Since writing this Rev. H. R. Voth has published a valuable collection of folk-tales and myths. Field Mus. Pub. 96.

In the earth lived the Spider Woman, ancient of days, full of wisdom, and having a tender regard for her people, the Hopi. Born to her from a light-ray and a drop of rain were the Twins; one, the son of light, was the little war-god called the Youth; the other was Echo, the son of the cloud.

The Youth became the savior of the people; his heroic deeds of the old times in slaying the monsters cause him still to be held in reverence by the Hopi and remembered in their ceremonies.

The conquests of the Twins gave rise to many strange adventures. The transformation of the man-eagle by the Twins is a favorite legend of the Hopi.

In the above, in the heart of the sky, lived the Man-Eagle. On the people of the whole earth he swooped down, carrying aloft women and maidens to his house, where after four days he devoured them. The Youth, journeying to the San Francisco Mountains, met at the foot-hills the Piñon maids dressed in mantles of piñon bark and grass, and here likewise he met the Spider Woman and the Mole. "You have come," said they in greeting; "sit down; whence go you?" Then said the Youth, "Man-Eagle has carried away my bride and I seek to bring her back." "I will aid you," said the Spider Woman.

She bade the Piñon maids to gather piñon gum, wash it, and make a garment in exact imitation of the flint arrow head armor which rendered Man-Eagle invulnerable. So did they, and the Spider Woman gave it, with charm flour, to the Youth. As a spider, then, so small as to be invisible, she perched on the right ear of the Youth that she might whisper advice. Mole led the way to the top of the mountains, but the Piñon maids remained behind.

When they reached the summit, Eagle swooped down; they got on his back and he soared aloft with them till he was tired. Hawk came close by, and on his back he carried them still higher in the sky. When he was weary, Gray Hawk took them and mounted to the heavens with them till he could go no farther, and Red Hawk received the burden; thus, for an immense distance, upward they flew, until the adventurers reached a chasm in the sky through which the Youth, Spider Woman, and Mole passed, and saw the great white house in which Man-Eagle lived.

The ladder which led into the house had for rungs sharp flint knives. The Spider Woman advised the Youth, before mounting the ladder, to gather a handful of sumach berries and give them to Lizard, who received them with thanks, chewed them and gave him back the cud. The Youth rubbed the sharp rungs with the chewed berries and they became dull at once, and he was able to climb the ladder without cutting himself. When he entered the house of Man-Eagle he saw hanging the monster's flint arrow head armor, on a peg in a recess, and he at once exchanged it for the false armor the Piñon maids had given him. In another recess he saw Man-Eagle and his lost wife. He called out to her that he had come to rescue her from the monster, and she replied that she was glad, but that he could not do so, as no one ever left the place alive. The Youth replied, "Have no fear; you will soon be mine again."

The Spider Woman's charm was so powerful that the Man-Eagle did not hear what was said, but he soon awoke, and put on the imitation flint armor without detecting the fraud. He then for the first time became aware of the Youth's presence, and demanded what he wished. "I have come to take my wife home," answered the hero. Man-Eagle said, "We must gamble to decide that, and if you lose I shall slay you," to which the Youth agreed. Man-Eagle brought out a huge pipe, larger than a man's head, and having filled it with tobacco, gave it to the hero, saying, "You must smoke this entirely out, and if you become dizzy or nauseated, you lose." So the Youth lit the pipe and smoked, but exhaled nothing. He kept the pipe aglow and swallowed all the smoke and felt no ill effect, for he passed it through his body into an underground passageway that Mole had dug. Man-Eagle was amazed and asked what had become of the smoke. The Youth, going to the door, showed him great clouds of dense smoke issuing from the four cardinal points, and the monster saw that he had lost.

But Man-Eagle tried a second time with the hero. He brought two deer-antlers, saying, "We will each choose one, and he who fails to break the one he chooses loses." The antler which he laid down on the northwest side was a real antler, but that on the southeast was an imitation made of brittle wood. Spider Woman prompted the Youth to demand the first choice, but Man-Eagle refused him that right. After the youth had insisted four times, Man-Eagle yielded, and the hero chose the brittle antler and tore its prongs asunder, but Man-Eagle could not break the real antler, and thus lost a second time.

Man-Eagle had two fine, large pine trees growing near his house, and said to the hero, "You choose one of these trees and I will take the other, and whoever plucks one up by the roots shall win." Now Mole had burrowed under one of them and had gnawed through all its roots, cutting them off; and had run through his tunnel and was sitting at its mouth, peering through the grass, anxious to see the Youth win. The hero, with the help of his grandmother, chose the tree that Mole had prepared and plucked it up, and threw it over the cliff, but Man-Eagle struggled with the other tree and could not move it, so he was unhappy in his third defeat.

Then Man-Eagle spread a great supply of food on the floor and said to the Youth that he must eat all at one sitting. The Youth sat and ate all the meat, bread, and porridge, emptying one food basin after another, and showed no sign of being satisfied before all was consumed; for Mole had again aided him and dug a large hole below to receive it, and the Youth was a winner the fourth time.

Man-Eagle then made a great wood-pile and directed the Youth to sit upon it, saying he would ignite it and that if he were unharmed he would submit himself to the same test. The Youth took his allotted place, and Man-Eagle set fire to the pile of wood at the four cardinal points, and it speedily was ablaze. The arrow-heads of which the flint armor was made were coated with ice, which melted so that water trickled down and prevented the Youth from being burnt, and all the wood-pile was consumed, leaving the Youth unharmed.

The monster was filled with wonder and grieved very much when he saw the Youth making another great pile of wood. Still thinking that he wore his fire-proof suit, he mounted the wood-pile, which the Youth lit at the four cardinal points. The fuel blazed up, and as soon as the fire caught the imitation armor of gum, it ignited with a flash and the monster was consumed. At the prompting of the Spider Woman, the Youth approached the ashes, took the charm in his mouth, and spurted it over them, when suddenly a handsome man arose. The Spider Woman said to him, "Will you refrain from killing people, and will you forsake your evil habits?" The Man-Eagle assented with a fervent promise, and the Youth, rejoicing, ran to his wife, embraced her, and set free all the captive women wives of the Hopi and other peoples, of whom there were many. Eagle and Hawk carried them to the ground on their broad pinions.

Over the plains and through the mountains roamed the Giant Elk. Many times larger was he than an ordinary elk, and an enemy to the Hopi, whom he slew with his great horns, laughing at their arrows and flint knives.

No one was safe from this roaming monster, enemy to living beings, so the Twins set out to have a trial of strength and skill with him. As it chanced, the Giant Elk was lying down in a beautiful valley, under the aspen trees of the San Francisco Mountains. Near the house of the Youths was this valley, and as they sought to stalk the Giant Elk the Mole met them and said, "Do not encounter him, for he is mighty and may kill you; wait here and I will help you."

The Mole then excavated four chambers in the earth, one below another, and made the Twins remain in the upper one. He dug a long tunnel and coming up under the Elk, plucked a little soft hair from over his heart, at which the Elk turned his head and looked down, but the Mole said, "Be not angry, I only want a little soft hair to make a bed for my children." So the Elk allowed him to continue the plucking. But the Mole took away enough fur to leave the skin quite bare over the heart, and expose the Elk to death. He then returned to the Twins and told them what he had done, and they threw bolts of lightning and wounded the Elk, who sprang to his feet and charged fiercely. But the Twins concealed themselves in the upper chamber, and when the Elk tried to gore them his horns were not long enough; again he charged, and thrust his horns downward, but the Twins had safely retreated to the second chamber; again he tried to reach them, but they were safe in the third room. They retreated to the fourth chamber, and when the Elk made another attempt he fell dead.

The Chipmunk who had witnessed the fight hurried up, and after thanking the Twins said he had come to show them how to cut up the monster's body, which with his sharp teeth he soon accomplished. One of the Twins thanked Chipmunk, and, stooping, he dipped the tips of the first two fingers of his right hand in the Elk's blood and drawing them along the body of the Chipmunk, made on it the marks which he still bears.

This is the story of how the Twins killed Chaveyo, who was a giant of the old times, clad in armor made of flint and seeking always for people to devour.

One day the Twins went to a great pool near Mt. Taylor, and soon Chaveyo came there likewise; he knelt down and drank four times, empting the pool. He then arose and smelt the Twins and threw his weapon at them, but one of the Twins sprang in the air and as the weapon passed under him he caught it in his hand. Chaveyo then flung his lightning at the hero, but one of the Twins caught this as he had the weapon. The little war-god now flung his weapon at Chaveyo, but it glanced off his flint shirt. Then the Youth threw the lightning, but it only staggered him. After this they threw more lightning at Chaveyo, which knocked him down and killed him outright.

Another story tells how the Twins visited the sun.

The Twins lived with Spider Woman, their mother, on the west side of Mt. Taylor, and desired to see the home of their father. Spider Woman gave them as a charm a kind of meal, and directed that when they met the guardians of the home of the Sun, to chew a little and spurt it upon them.

The Twins journeyed far to the sunrise where the Sun's home is entered through a canyon in the sky. There Bear, Mountain Lion, Snake, and Canyon Closing keep watch. The sky is solid in this place, and the walls of the entrance are constantly opening and closing, and would crush any unauthorized person who attempted to pass through.

As the Twins approached the ever-fierce watchers, the trail lay along a narrow way; they found it led them to a place on one side of which was the face of a vertical cliff, and on the other a precipice which sunk sheer to the Below (Underworld). An old man sat there, with his back against the wall and his knees drawn up close to his chin. When they attempted to pass, the old man suddenly thrust out his legs, trying to knock the passers over the cliff. But they leaped back and saved themselves, and in reply to a protest the old man said his legs were cramped and he simply extended them for relief. Whereupon the hero remembered the charm which he had for the southwest direction, and spurted it upon the old man, forcing the malignant old fellow to remain quite still with legs drawn up, until the Twins had passed.

They then went on to the watchers, guardians of the entrance to the Sun's house, whom they subdued in the same manner. They also spurted the charm on the sides of the cliff, so that it ceased its oscillations and remained open until they had passed.

These dangers being past, they entered the Sun's house and were greeted by the Sun's wife, who laid them on a bed of mats. Soon Sun came home from his trip through the underworld, saying,

> I smell strange children here; when men go away their wives receive the embraces of strangers. Where are the children whom you have?

So she brought the Twins to him, and he put them in a flint oven and made a hot fire. After a while, when he opened the door of the oven, the Twins capered out laughing and dancing about his knees, and he knew that they were his sons.[11]

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[11] From "The Destruction of the Tusayan Monsters," by J. Walter Fewkes; Journ. Amer. Folk-Lore, April-June, 1895, pp. 136-137.

Dr. J. Walter Fewkes says:

> The Hopi, like many people, look back to a mythic time when they believe their ancestors lived in a "paradise," a state or place where food (corn) was plenty and rains abundant — a world of perpetual summer and flowers. Their legends recount how, when corn failed or rains ceased, culture heroes have sought this imaginary or ideal ancestral home to learn the "medicine" which blessed this happy land. Each sacerdotal society tells the story of its own hero, who generally brought from that land a bride who transmitted to her son the knowledge of the altars, songs, and prayers which forced the crops to grow and the rains to fall in her native country. To become thoroughly conversant with the rites he marries the maid, since otherwise at his death they would be lost, as knowledge of the "medicine" is transmitted not through his clan, but to the child of his wife. So the Snake hero brought the Snake maid (Corn-rain girl) from the underworld, the Flute hero, her sister, the Little War God the *Lakone mana*. A *Katcina* hero, in the old times, on a rabbit hunt, came to a region where there was no snow. There he saw other *Katcina* people dancing amidst beautiful gardens. He received melons from them and carrying them home told a strange story of a people who inhabited a country where there were flowering plants in midwinter. The hero and a comrade were sent back and they stayed with these people, returning home loaded with fruit during February. They had learned the songs of those with whom they had lived and taught them in the kiva of their own people.[12]

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[12] The Journ. Amer. Eth. and Arch., Vol. II, p. 152. The Kachina hero in this story would appear not to have brought a wife from this people.

Most of the migration traditions are full of mythic elements which have been incorporated with what has often been found to be veritable history. One of these, recounting the wanderings of certain Southern clans, is given by Dr. Fewkes.

At the Red House in the south internecine wars prevailed, and the two branches of the Patki people separated from the other Hopi and determined to return to the fatherland in the north. But these two branches were not on the best of terms, and they traveled northward by separate routes, the (later settlers of) Miconinovi holding to the east of the (later settlers of) Walpi.

The Patki traveled north until they came to the Little Colorado River, and built houses on its banks. After living there many years the factional dissensions, which seem to have ever haunted these people, again broke out, and the greater portion of them withdrew still farther north and built villages the ruins of which are still discernable not far from the site of the villages their descendants inhabit at present.

The Squash (Miconinovi) also trended slowly northward, occupying, like all their legendary movements, a protracted period of indefinite length — years during which they planted and built homes alternating with years of devious travel. They grew lax in the observance of festivals, and Muinwu inflicted punishment upon them. He caused the water to turn red, and the color of the people also turned red; he then changed the water to blue, and the people changed to a similar color. The Snow *katcina* appeared and urged them to return to their religion, but they gave no heed to him, so he left them and took away corn.

Muinwu then sent *Palulukon* who killed rabbits and poured their blood in the springs and streams, and all the water was changed to blood and the people were stricken with a plague. They now returned to their religious observances, and danced and sang, but none of the deities would listen to them.

A horned *katcina* appeared to the oldest woman and told her that on the following morning the oldest man should go out and procure a root, and that she and a young virgin of her clan should eat it. After a time she (the old woman) would give birth to a son who would marry the virgin, and their offspring would redeem the people. The old woman and the virgin obeyed the *katcina*, and the former gave birth to a son who had two horns upon his head. The people would not believe that the child was of divine origin; they called it a monster and killed it.

After this all manner of distressing punishments were inflicted upon them, and wherever they halted, the grass immediately withered and dried. Their wanderings brought them to the foot of the San Francisco Mountains, where they dwelt for a long time, and at that place the virgin gave birth to a daughter who had a little knob on each side of her forehead. They preserved this child, and when she had grown to be a woman, the horned *katcina* appeared and announced to her that she would give birth to horned twins, who would bring rain and remove the punishment from their people. This woman was married, and the twins, a boy and a girl, were born; but she concealed their divine origin, fearing they would be destroyed.

The *Patun* (Squash) now moved to the Little Colorado, where they built houses and met some of the

Patki people to whom they related their distresses. A wise man of the *Patki* came over to see them, and on seeing the twins at once pronounced them to be the *Alosaka*. They had no horns up to this time, but as soon as this announcement was made, their horns became visible and the twins then spoke to the people and said it had been ordained that they were to be unable to help their people until the people themselves discovered who they were. The *Patun* were so enraged to think that the *Alosaka* had been with them, unknown so many years, that they killed them, and still greater sufferings ensued.

They again repented, and carved two stone images of the *Alosaka* which they painted and decked with feathers and sought to propitiate the mother. She was full of pity for her people and prayed to the Sky-god to relieve them. A period elapsed in which their troubles were in great measure abated.

The *Patun* then sought to join the *Patki* clans, but the *Patki* would not permit this, and compelled them to keep east of Awatobi.

Many ruins of phratry and family houses of the *Patun* people exist on the small watercourses north of the Puerco at various distances eastward from the present village of Walpi. The nearest are almost fifteen miles, the farthest about fifty miles.

Their wandering course was now stayed. When they essayed to move farther eastward, a nomadic hunting race who occupied that region besought them not to advance farther. Their evil notoriety had preceded them, and the nomads feared the maleficent influence of their neighborhood. It would seem, however, that instead of hostile demonstrations the nomads entered into a treaty with them, offering to pay tribute of venison, roots, and grass-seeds, if they would abstain from traversing and blighting their land, to which the *Patun* agreed.

But these unfortunate wretches were soon again embroiled in factional warfare which finally involved all the Hopi, and the stone images of the *Alosaka* were lost or destroyed. Famine and pestilence again decimated them, until finally the *Alosaka katcina* appeared to them and instructed them to carve two wooden images, but threatening them that if these images should be lost or destroyed, all the people would die.

Many other but widely divergent legends exist regarding the *Alosaka*, a number of which are associated with the pueblo of Awatobi, which was formerly one of the most populous Hopi towns. At one time this village experienced drought and famine, and *Alosaka*, from his home in the San Francisco Mountains, observed the trouble of the people. Disguised as a youth he visited Awatobi and became enamored with a maiden of that town. Several times he visited her, but no one knew whence he came or whither he went, for his trail no one could follow. The parents of the girl at last discovered that he came on the rainbow, and recognized him as a divine being. The children of this maid were horned beings, or *Alosakas*, but their identity was not at first recognized.

Like all the cultus heroes, *Alosaka* is said, in legends, to have been miraculously born of a virgin. His father was the Sun, his mother an Earth-goddess, sometimes called a maiden. Like many gods, he traveled on the rainbow; he lived at Tawaki, the house of his father, the Sun, or the San Francisco Mountains.[13]

There is another tradition of the clans that moved from the southward collected by the late A. M. Stephen from no less a personage than Anowita (p. 208), who was chief of the Cloud people. The tradition is as follows:

We did not come direct to this region [Tusayan], — we had no fixed intention as to where we should go. We are the Patki nyumu, and we dwelt at Palatkwabi [Red land] where the agave grows high and plentiful; perhaps it was in the region the Americans call Gila valley, but of that I am not certain. It was far south of here, and a large river flowed past our village, which was large, and the houses were high, and a strange thing happened there.

Our people were not living peaceably at that time, we were quarreling among ourselves, over huts and other things, I have heard, but who can tell what caused their quarrels? There was a famous hunter of our people, and he cut off the tips from the antlers of the deer which he killed and [wore them for a necklace] he always carried them. He lay down in a hollow in the court of the village, as if he had died, but our people doubted this; they thought he was only shamming death, yet they covered him up with earth. Next day his extended hand protruded, the four fingers erect, and the first day after that one finger disappeared [was doubled up?]; each day a finger disappeared, until on the fourth day his hand was no longer visible and the old people thought that he dug down to the underworld with the horn tips.

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[13] The Alosaka Cult of the Hopi Indians, by J. Walter Fewkes; American Anthropologist (N. S.), Vol. I, July, 1899, pp. 535-539.

On the fifth day water spouted up from the hole where his hand had been and it spread over everywhere. On the sixth day, *Palulokona* [the Serpent Deity] protruded from this hole and looked around in every direction. All the lower ground was covered and many were drowned, but most of our people had fled to some knolls not far from the village and which were not yet submerged.

When the old men saw *Palulukona* they asked him what he wanted, because they knew he had caused this flood; and *Palulukona* said, "I want you to give me a youth and a maiden." The elders consulted and then selected the handsomest youth and fairest maid and arrayed them in their finest apparel, the youth with a white kilt and paroquet plume, and the maid with a fine blue tunic and white mantle. These children wept and besought their parents not to send them to *Palulukona*, but an old chief said, "You must go; do not be afraid: I will guide you." And he led them toward the village court and stood at the edge of the water, but sent the children wading in toward *Palulukona*, and when they had reached the center of the court where *Palulukona* was the deity, the children disappeared. The water then rushed down after them, through a great cavity, and the earth quaked and many houses tumbled down, and from this cavity a great mound of dark rock protruded. This rock mound was glossy and of all colors; it was beautiful, and, as I have been told, it still remains there.

The White Mountain Apache have told me that they know a place in the south where the old houses surround a great rock, and the land in the vicinity is wet and boggy.

We traveled northward from *Palatkwabi* and continued to travel just as long as any strength was left in the people, — as long as they had breath. During these journeys we would halt only for one day at a time. Then our chief planted corn in the morning and the dragonfly came and hovered over the stalks and by noon the corn was ripe; before sunset it was quite dry and the stalks fell over, and in whichever way they pointed, in that direction we traveled.

When anyone became ill, or when children fretted and cried, or the young people became homesick the Coiyal Katcina (a youth and a maiden) came and danced before them; then the sick got well, children laughed, and sad ones became cheerful. We would continue to travel until everyone was thoroughly worn out, then we would halt and build houses and plant, remaining perhaps many years. One of these places where we lived is not far from San Carlos, in a valley, and another is on a mesa near a spring called Coyote Water by the Apache. . . .

When we came to the valley of the Little Colorado, south of where Winslow now is, we built houses and lived there; then we crossed to the northern side of the valley and built houses at Homolobi. This was a good place for a time, but a plague of flies came and bit the suckling children, causing many of them to die, so we left there and traveled to Cipa (near Kuma spring). Finally we found the Hopi, some going to each of the villages except Awatobi; none went there.[14]

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[14] Cosmos Mindeleff, 13th Annual Report of the Bureau of American Ethnology, pp. 188-189.

The figure of a hand with extended fingers is very common, in the vicinity of ruins, as a rock etching, and also is frequently seen daubed on the rocks with colored pigments or white clay. These are vestiges of a test formerly practiced by the young men who aspired for admission to the fraternity of the Calako. The Calako is a trinity of two women and a man from whom the Hopi obtained the first corn, and of whom the following legend is told:

There was neither springs nor streams, although water was so near the surface that it could be found by pulling up a tuft of grass. The people had but little food, however, and they besought Masauwuh to help them, but he could not.

There came a little old man, a dwarf, who said that he had two sisters who were the wives of Calako, and it might be well to petition them. So they prepared an altar, every man making a *paho*, and these were set in the ground so as to encircle a sand hillock, for this occurred before houses were known.

Masauwuh's brother came and told them that when Calako came to the earth's surface wherever he placed his foot a deep chasm was made, then they brought to the altar a huge rock, on which Calako might stand, and they set it between the two *pahos* placed for his wives. Then the people got their rattles and stood around the altar, each man in front of his own *paho*; but they stood in silence, for they knew no song with which to invoke this strange god. They stood there for a long while, for they were afraid to begin the ceremonies, until a young lad, selecting the largest rattle, began to shake it and sing. Presently a sound like rushing water was heard, but no water was seen; a sound also like great winds, but the air was perfectly still, and it was seen that the rock was pierced with a great hole through the center. The people were frightened and ran away, all save the young lad who had sung the invocation.

The lad soon afterward rejoined them, and they saw that his back was cut and bleeding, and covered with splinters of yucca and willow. The flagellation, he told them, had been administered by Calako, who told him that he must endure this laceration before he could look upon the beings he had invoked; that only to those who passed through his ordeals could Calako become visible; and as the lad had braved the test so well, he should henceforth be chief of the Calako altar. The lad could not describe Calako, but said that his two wives were exceedingly beautiful and arrayed with all manner of fine garments. They wore great headdresses of clouds and every kind of corn which they were to give to the Hopi to plant for food. These were white, red, yellow, blue, black, blue and white speckled, and red and yellow speckled corn, and a seded grass (*kwapi*).

The lad returned to the altar and shook his rattle over the hole in the rock and from its interior Calako conversed with him and gave him instructions. In accordance with these he gathered all the Hopi youths and brought them to the rock, that Calako might select certain of them to be his priests. The first test was that of putting their hands in the mud and impressing them upon the rock. Only those were chosen as novices the imprints of whose hands had dried on the instant. The selected youths then moved within the altar and underwent the test of flagellation. Calako lashed them with yucca and willow. Those who made no outcry were told to remain in the altar, to abstain from salt and flesh for ten days, when Calako would return and instruct them concerning the rites to be performed when they sought his aid.

Calako and his two wives appeared at the appointed time, and after many ceremonials gave to each of the initiated five grains of each of the different kinds of corn. The Hopi women had been instructed to place baskets woven of grass at the foot of the rock, and in these Calako's wives placed the seeds of squashes, melons, beans, and all the other vegetables which the Hopi have since possessed. Calako and his wives, after announcing that they would again return, took off their masks and garments, and laying them on the rock disappeared within it.

Some time after this, when the initiated were assembled in the altar, the Great Plumed Snake appeared to them and said that Calako could not return unless one of them was brave enough to take the mask and garments down into the hole and give it to him. They were all afraid, but the oldest man of the Hopi took them down and was deputed to return and represent Calako.

Shortly afterward Masauwuh stole the paraphernalia and with his two brothers masqueraded as Calako and his wives. This led the Hopi into great trouble, and they incurred the wrath of Muiyinwuh, who withered all their grain and corn. One of the Hopi finally discovered that the supposed Calako carried a cedar bough in his hand, when it should have been willow; then they knew it was Masauwuh who had been misleading them. The boy hero one day found Masauwuh asleep, and so regained possession of the mask. Muiyinwuh then withdrew his punishments and sent *Palulukon* (The Plumed Snake) to tell the Hopi that

Calako would never return to them, but that the boy hero should wear his mask and represent him, and his festival should be celebrated when they had a proper number of novices to be initiated.

The celebration occurs in the modern Hopi pueblos in the Powamu ceremony, where the representative of Calako flogs the children. Calako's picture is formed on the Powamu altars of several of the villages of the Hopi.[15]

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[15] Dr. J. Walter Fewkes, Expedition to Arizona in 1895, 17th Annual Report of the Bureau of American Ethnology, Part 2; Washington, 1898. C has the sound of sh.

IX

TRADITIONS AND HISTORY

When men grow old, they become, as if realizing their passing, years willing or even anxious to transfer to younger minds what they have learned. To the old men the historian of Hopi turns for information; the young men by the laws of growth live in the present. So when an old man dies there is a feeling of regret; especially when one as versed in the lore of his people as Masimptua departs, for who knows whether the pictures of his brain are impressed upon the minds of the new generation or whether they are lost forever?

Masimptua was one of the chief men of the East Mesa. His house was as large and neatly-kept as any in Sichomovi, where there is more room to build large dwellings than in circumscribed Walpi with its narrow cells. His children were grown up and married, and a number of little ones called him grandfather. Still his resting place is among the rocks on the mesa slope below the town, unmarked, as are those of his ancestors who sleep outside of the walls of the ruined cities of the Southwest. It is pleasant to remember "Masi" in his cheerful days, before warning shadow fell across his sunny spirit. In those days he was a genuine Hopi, a little boisterous, perhaps, but truly openhearted. No man in all the tribe could relate more vividly the legendary history of the old times, hence Masi stands to all who knew him as the exponent of Hopi traditions. Often summer evenings, returning from his fields he would tarry at the camp of the white people at the Sun Spring for a friendly smoke and chat. Here under the genial influences, led on by skillful questioning, he would unfold many a tale as interesting as those of an Eastern storyteller, till the sunset faded and the bright stars twinkled in the clear night sky.

One of his stories gives an idea of the happenings in Hopiland some centuries ago. At that time the people suffered from the attacks of the bands of Apache, who came out of their hunting grounds to the south in search of trouble. The trails to the mesa were closed and the Hopi went up and down the precipitous rock sides by means of a ladder which could be drawn up in time of danger. Masi could not avoid painting the prowess of the Hopi in strong colors while he described the last attack the Apache made when his grandfather was a boy. He gesticulated excitedly as though he were giving the death-blow to each of the fallen enemy that had fled before the valiant Hopi, and his hearer caught the contagion of his enthusiasm and slew with him the hated foe.

Another tradition he related was about the ancient people. Looking toward the Southwest he said, "Do you see two small peaks close together on the horizon? There is one of the houses of the sun, where he rests when he is in the west. Our people once lived in a rock town on the peak to the left. The town was called '*Chub i o chala ki*,' 'The house of the place of the Antelopes,' where also there are pine trees, shrubs and flowers, grass and much water. Perhaps it was here, who knows?" said he, "that the people were almost overwhelmed by a great flood which kept rising over the plains and over the hills till it reached nearly the tops of the mountains where the ancestors were waiting in fear. When the boy and girl were thrown into the flood, then came safety, for the wrath of the earth-god was appeased and the waters went down. But the youth and maiden heroes were turned into two great stone pillars, which bear their names to this day." (See Myths.)

This striking legend of some almost forgotten deluge related by Masi is not found alone among the Hopi, but is widespread among the Pueblos of the Southwest. Surely, there is no danger now of a flood in this dry region, but in former times as the vast levels and the beds of ancient lakes show, there must have been plenty of water. Masi's traditions do not go into geological periods, however.

Another time, while in reminiscent mood, Masi divulged that "very, very when" ago the Peaceful

People lived on the Little Colorado River near Winslow. The name of the region where several towns were scattered over an extent of fifteen miles or so was Homolobi, "the place of two views." Here the people lived centuries before they came to the precipitous mesas of Hopiland. Later, when explorers tested the accuracy of Masi's tradition, they found in the low mounds that mark the ruined towns of Homolobi, many wonderful relics of the people who lived there before America was even a name. So Masi was proved a reliable traditionist, and an "honisht man," as Toby, the Tewa, says.

It is truly remarkable how the traditions and legendary lore have been carried down from ancient times among the Hopi. The moderns, who are accustomed to place reliance in recorded history, might be inclined to doubt the accuracy of oral tradition, if there were not much reason to believe otherwise. For instance, the Hopi have a number of traditions of the Spanish friars who lived in their country after the discovery by Coronado about three hundred and seventy-five years ago. An Oraibi Indian relates one of these minor traditions which might be expected to have been lost in the lapse of time but has been passed down with complete preservation of all the details.

It is thus: the friars who lived at Oraibi did not relish the water from the springs near the pueblo. Now the water at Moenkapi, the summer village of Oraibi, is excellent. The priests used to compel the

Indians to bring water from that place. It chanced that the Indian whose duty it was to carry water from Moenkapi, not liking to bring water many miles *por el amor de Dios*, one day filled his canteen with the water of Oraibi and brought it to the friars. On tasting the water, they accused the Indian of deceit and compelled him to go to Moenkapi for more.

An old chief of Walpi gave a long and circumstantial account of the rule of the friars, against whom even at this late day he was very bitter. He said with emphasis, "*Castil shimuno pash kalolomi*," "The Spanish are very bad," and related how they strove to enslave the people, making them carry large cottonwood beams from the Little Colorado for the churches. To our knowledge, a few of these beams from the old churches, curiously carved, are now doing service in the ceilings of pagan kivas or underground rooms where secret ceremonies are carried on. The "long gowns," as the Indians also call them, might have held this tractable, timid people long in subjection in the non-essential things, such as labor, but as the old chief relates, they interfered with their time-honored ceremonies of ancestor and nature worship. "They said the dances were very bad and we must stop them," explained the old chief. There was still another grievance that the Hopi allege against the friars, and that was their treatment of the women. Interference with religion and custom have been at the bottom of most of the troubles of humanity. At last the Peaceful People turned and the *Castil shinumo* were thrown over the rocky mesa, and from that time to this their names have been execrated by the Hopi.

Traditions of the very first appearance of Spaniards before the Pueblos have come down for ten generations as fresh as though the events had happened last year, and they can be compared with the accounts of the conquerors themselves. This lapse of time has not given mythical tinge to these events. It may be believed, then, that the ancient history which has become mythical dates very far back and to regions far removed from the present mesas of Hopiland. Every ruin in the province, those south on the Little Colorado and farther beyond the dim Mogollon Mountains on the horizon and those to other compass points for surprising distances are known in Hopi traditions, and wise is the student of ancient things in Tusayan who first fortifies himself by delving in this store of unwritten history.

The duties of the warrior chiefs are not burdensome, since the Hopi have fostered the arts of peace till it has become a national characteristic. It is fortunate for the Hopi that they belong to those who run away, not even "to fight another day," desirous to live in contentment and happy to exist on the earth, after the fierce enemies have jostled many tribes out of existence. Still, the Hopi keep up in a feeble, traditional way a warrior society, which corresponds to the powerful Priesthood of the Bow who are said to rule Zuñi. So in the villages of Tusayan the warriors are merely ornamental and dance bravely in some ceremonies, though at some critical period of invasion the necessity of drawing the "dead line" might fall upon the warrior society, as it has beforetimes.

When one day in the year 1540 the Spaniards halted under the Hopi towns there was consternation among the people at the sight of the armored conquerors and all held back in their houses for fear of them. Not so the warrior priests, who, striding down the trail, sprinkled a line of meal between the town and the Spaniards. According to immemorial custom this line of meal means that no one shall pass under penalty of death. One of the Spanish soldiers crossed the line and was killed by the warriors. Then the Spanish friar who came with the expedition in quest of new souls to save, cried out in effect, "What are we here for?"; a volley followed; the Hopi heard the report of a gun for the first time, and a number of them bit the dust. The remainder fled to the village, which was thoroughly frightened at the terrible visitation of bearded foes. On the next day a deputation came down to the Spanish camp bringing presents and offering humble submission to the white men.

More than three centuries later, a body of United States troops who were sent to coerce the Oraibi because they would not send their children to school, met with a similar experience, but by good management no blood was shed and the Indian leaders were exiled to California for a year or so. It is a curious circumstance that in our county where the past is forgotten so soon there should exist a people who remember and take warning from the events of almost four centuries ago.

On the rocks below Walpi there is a curiously carved record which has a good bit of war history connected with it. Hear Anowita, the Warrior Chief, tell the story:

> Very when ago [long time] the Ute and Apache were always wishing to kill the Good People. They were very bad. At that time there was no trail up the great rocks to *Hopi-ki* "Walpi." The people climbed up and down a long ladder which could be drawn up at night. I can show you where the ladder stood. It was bad for the people to be frightened all the time, so they sent messengers to ask the Tewa from the Great River to come and dwell at Walpi to fight their enemies. The Tewa came, many families of them; there was a battle at a spring north of Walpi and the Tewa killed as many Utes as there are marks cut in the rock below the Gap. The Ute did not come back again. The Tewa were given lands and springs to the eastward and their village was set at the head of the trail near the Gap so that they could guard the mesa.

This is the origin of the Tewa town of Hano on the East Mesa, through which everyone must go who seeks an easy entrance into Walpi. One cannot avoid thinking that the recorder of the battle of the spring was not sparing with his list of dead Ute, which he scored with a series of lines cut in a smooth sandstone face.

The explorations in the buried towns of a section of the ancient Hopi which extend in a line from the Gila River to their present mesa homes show that for all these centuries they have been unwarlike people. There is the greatest scarcity of weapons, such as arrowheads and spearheads, and there are few war axes to be found among the numerous relics of peaceful pursuits, though wooden clubs were no doubt used. This accords with the situation of the towns on high, easily defended positions and the building of houses in clusters, the outer walls forming a fortification which defied assailants.

Only once during their history did the Hopi light the fires of war, and this was a religious conflict carried on in true Indian fashion. About the beginning of the seventeenth century the Spanish priests had gained a foothold in the town of Awatobi, situated on a high mesa south of Walpi. The Awatobi Hopi had prospered, and their valley, presenting to the south a marvelous panorama of the lava buttes, produced abundant food besides cotton for woven fabrics. Awatobi was a large town of Hopiland; the walls of the mission church still stand high enough to be a landmark miles away. The houses were four stories high and they were sufficient to accommodate 1,000 souls.

Perhaps this prosperity caused envy; perhaps the submission to the priests roused enmity; the other Hopi said that the Awatobi were witches, and one night they gathered to exterminate them. The Awatobi men were conducting a ceremony in the underground rooms when blazing fagots were thrown down, followed by pepper pods, and they perished miserably. Those who were captured in the houses were led out to a spring and massacred. The women and children, many of them, were taken to other Hopi towns and their lives spared.

This massacre took place about the year 1700 and forms the darkest page in the history of Tusayan; it shows also that the Peaceful People can be overzealous at times. In times much before this, according to tradition, Sikyatki, the home of the Firewood people, who were the last potters of Tusayan, was destroyed, as were, no doubt, other pueblos of tribes of different origin from the Hopi.

The story of Saalako, who descends from a survivor of the Awatobi massacre, runs as follows:

The chiefs Wiki and Simo, and others, have told you their stories, and surely their ancestors were living here at Walpi when Awatobi was occupied. It was a large village, and many people lived there, and the village chief was called Tapolo, but he was not at peace with his people, and there was quarreling and trouble. Owing to this conflict only a little rain fell, but the land was fertile and fair harvests were still gathered. The Awatobi men were bad [*powako*, sorcerers]. Sometimes they went in small bands among the fields of the other villagers and cudgeled any solitary workers they found. If they overtook any woman they ravished her, and they waylaid hunting parties, taking the game and sometimes killing the hunters. There was considerable trouble at Awatobi, and Tapolo sent to the Oraibi chief asking him to bring his people and kill the evil Awatobeans. The Oraibis came and fought with them, and many were killed on both sides, but the Oraibis were not strong enough to enter the village and were compelled to withdraw. On his way back, the Oraibi chief stopped at Walpi and talked with the chiefs there. Said he, "I can not tell why Tapolo wants the Oraibis to kill his folks, but we have tried and have not succeeded very well. Even if we did succeed, what benefit would come to us who live too far away to occupy the land? You Walpi people live close to them and have suffered most at their hands; it is for you to try." While they were talking Tapolo had also come, and it was then decided that other chiefs of all the villages should convene at Walpi to consult. Couriers were sent out, and when all the chiefs had arrived Tapolo declared that his people had become sorcerers [Christians], and hence should all be destroyed.

It was then arranged that in four days large bands from all the other villages should prepare themselves, and assemble at a spring not far away from Awatobi. A long while before this, when the Spaniards lived there, they had built a wall on the side of the village that needed protection, and in this wall was a great, strong door. Tapolo proposed that the assailants should come before dawn, and he would be at this door ready to admit them, and under this compact he returned to his village. During the fourth night after this, as agreed upon, the various bands assembled at the deep gulch spring, and every man carried, besides his weapons, a cedar-bark torch and a bundle of greasewood. Just before dawn they moved silently up to the mesa summit, and, going directly to the east side of the village they entered the gate, which opened as they approached. In one of the courts was a large kiva, and in it were a number of men engaged in sorcerer's rites. The assailants at once made for the kiva, and plucking up the ladder, they stood around the hatchway, shooting arrows down among the entrapped occupants. In the numerous cooking pits fire had been maintained through the night for the preparation of food for a feast on the appointed morning, and from these they lighted their torches. Great numbers of these and the bundles of greasewood being set on fire were then cast down the hatchway, and firewood from stacks upon the house terraces was also thrown into the kiva. The red peppers for which Awatobi was famous were hanging in thick clusters along the fronts of the houses, and these they crushed in their hands and flung upon the blazing fire in the kiva to torment their blazing occupants. After this, all who were capable of moving were compelled to travel or drag themselves until they came to the sand hills of Miconinovi, and there the final disposition of the prisoners was made.

My maternal ancestor had recognized a woman chief (*Mamzrau monwi*), and saved her at the place of massacre called Maski, and now he asked her whether she would be willing to initiate the women of Walpi in the rites of the Mamzrau. She complied, and thus the observance of the ceremony called Mamzrauti came to the other villages. This *Mamzrau monwi* had no children and hence my maternal ancestor's sister became chief, and her badge of office, or tiponi, came to me. Some of the other Awatobi women knew how to bring rain, and such of them as were willing to teach their songs were spared and went to different villages. The Oraibi chief saved a man who knew how to cause the peach to grow, and that is why Oraibi has such an abundance of peaches now. The Miconinovi chief saved a prisoner who knew how to make the sweet, small-ear corn grow, and this is why it is more abundant there than elsewhere. All the women who knew prayers and were willing to teach them were spared, and no children were designedly killed, but were divided among the villages, most of them going to Miconinovi. The remainder of the prisoners, men and women, were again tortured and dismembered and left to die on the sand hills, and there their bones are, and the place is called Mastcomo, or Death Mound. This is the story of Awatobi told by my people.[16]

It is difficult to conceive of the conservatism of some of the older Hopi. A glimpse of the clinging to the myth of the golden age is shown by the speech of the old chief Nashihiptuwa, to whom the past was an ideal time of plenty and contentment under the bright sky of Tusayan.

It was Sunday and the camp by a peach orchard in a deep valley at the Middle Mesa was made lively by the presence of about thirty Indian laborers, mostly Walpi "boys." Far above on the rocky mesas could be seen three Hopi towns which bear names difficult of pronunciation, "The place of peaches" being most picturesque. To the West were innumerable barren hillocks, furrowed and gullied, rising toward the warm sandstone cliffs bearing the pueblos at the top. Along the wash which from time immemorial had been carving out this wonderfully sculptured valley were the bean and melon patches of the Indians, and on the higher ground dark green peach orchards. Out of the mouth of the valley there stretched the wide plain, merging into the many-hued desert.

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[16] "Preliminary account of an expedition to the cliff villages of the Red Rock country; and the Tusayan ruins of Sikyatki and Awatobi, Arizona, in 1895." By J. Walter Fewkes, from the Smithsonian Report for 1895, pp. 568-569.

On this particular Sunday the exploring party felt out of sorts. The Indian workmen who had been digging in the ruins of an ancient pueblo near by had been served notice by the chief of the neighboring village to quit and a warning sent to our party in this wise, "Go away, you are bad; you bring the wind and keep away the rains." This is a grave charge in a country where winds disperse the thunder clouds with their precious burden before they reach the corn fields. No invention could devise a more damaging statement. The Walpi, who are freer from superstition than most of the Hopi, felt less desire to earn the coveted silver after this announcement. Finally it was decided to ask Nashihiptuwa to a council, talk it over with him and persuade him to withdraw his ultimatum. A boy was dispatched to find him in his field where he was at work.

Shortly the old chief of Shumopavi appeared in the distance, clad in a breech-clout and with a hoe on his shoulder. He stopped outside the camp and put on an abbreviated cotton shirt, making himself somewhat more presentable. Squatting on the sand with hands clasped around the knees, a favorite Indian posture, the superannuated chief helped himself to tobacco and prepared for the argument with the circle of interested listeners. The day was very warm and a bank of clouds slowly coming up from the San Francisco Mountains seemed to promise rain which might convince the old man of the fallacy of his views. Hence the progress of this rain storm was an object of uncommon solicitude to the explorers. Dan, a school boy, who had been taught English, acted as interpreter.

After a few preliminary remarks in which the old chief craftily laid the blame of the edict to the chief of another town whom all the Middle-Mesa people fear, the discussion began as to whether the contact with the white man had been beneficial or injurious to the Hopi. Since circumstances, geographical and governmental, have conspired to keep the Hopi away from strong drink and other contaminations, the white man had a better case than usual. On his side the old chief mumbled that in the good old times the fields were more fruitful, the country covered with grass waist high, there were no cares, the people were happy and long-lived, the gods propitious, Urukiwa, the wind-god, did not drive away the rains; now all this was changed.

The Walpi spokesman then in his turn pointed out the benefits which the white man had brought. Said he:

"What were we before the white man from the far water came? Half naked, working our scanty crops with hoes of wood, often suffering from famine as the traditions relate, without sheep and beasts of burden, without peach trees and many vegetables, without sugar, flour and tobacco, and driven from place to place in the deserts by our ancient enemies. Where did you get your shirt, your cotton cloth, and your hoe? Has not Wasintona given us wagons and many other things, and protected us from the Navaho and Apache? The white man is *pash lolomi*, 'very good.'"

The old man seemed vexed at the force of this argument, and he began a speech which lasted, it seemed to the listeners, about two hours. It is a loss to science that this speech could not be taken down. As near as could be gathered he began at the beginning when the people came up from the underworld, and traced the history through its various stages, detailing the events, weaving in ancient lore arguing, expanding, and digressing until he brought it down to the present.

As he drew his remarks to a close, a blast of wind charged with sand blew down the canvas sun-shade. The old chief found in this a corroboration of his contention, and, in the confusion, seized his hoe and a can of peaches, which was a present, and made off angrily, firing as a parting shot, "Go away; you are very bad!"

It is scarcely necessary to say that the next day, bright and early, witnessed the exodus of all strangers from that quiet valley near the Middle Mesa. Nashihiptuwa, clad in his natural wrinkled bronze costume, was hoeing in his bean patch, looking neither to the right nor to the left.

X

BRIEF BIOGRAPHIES

The former chief Snake Priest of Walpi was a young man of good presence, of splendid physique, with regular features and grave, dignified look; in whose face there seemed to be often a trace of melancholy, arising perhaps from deep thought. For it takes a man to be Snake Priest, and the office brings out all there is in one.

Kopeli was as well trained as any civilized man whatsoever, taking into consideration the demands of the different planes of culture. Education is as general among these Indians as it is among the more enlightened people. It would be too long to go into details, but briefly the Hopi child's life is largely a kindergarten of play-instruction by kind teachers of things useful in active life. He is wrapped in the customs which have become religion, he is initiated into manhood, and takes his place, perhaps inherited, in the fraternities. With all these he is taught the lore, the practices, and the songs — minutiæ which require a strong memory. He learns the plants and the animals to which the Hopi had given descriptive names long before Linnæus or Cuvier. The sun is his clock, and all nature is near to him. He must work also in the fields if he would eat — no drones are tolerated. In short, there is a surprising complexity in this life, and its demands are weighty. Thus Kopeli at the head of the most powerful and awe-inspiring society of his people has been put to many tests and bore upon his shoulders the weight of immemorial custom.

While there was in Kopeli a dignity which commands respect from the mirthful Hopi, he could on occasion be as entertaining as any of his tribe, and usually was cheerful and friendly. The exception is when the Snake rites are in progress. Then he seemed a different person, and it was not proper for him to recognize his best friend.

The Walpi Snake Ceremony, of which the public dance is known to many persons, is well worth braving the journey to see. The grand entry of the Snake and Antelope priests on the dance plaza headed by Kopeli and Wiki is one of the most impressive spectacles that can be witnessed on this continent. There is so much energy put into the work; with strides positively tragic, the file of strangely costumed priests march to the *kisi*, where the snakes have been deposited. Then commences the weird dance with live rattlesnakes held in the mouth to the distant chant of Antelope priests. Kopeli was here at his best. He was a notable figure; no other participant displayed such eagerness and force. These were some of the salient elements of his character, and by these he succeeded, whether as a farmer as as Snake Priest, and took his high position among his people. There is an interesting mingling of the old and new at Walpi. Kopeli became a typical example of the union of past and present. Wiki, his Nestor, was in every fiber imbued with the usages and traditions of the past. One instinctively admires the old man's firm belief, and his respect for the ancient ceremonies. The leaven of the new was in Kopeli, as may be seen from the following. A wide-awake town in New Mexico wanted the Hopi Snake Dance reproduced at the fair held there in the autumn, realizing that it would be a feature to attract many visitors. Kopeli was approached and offered what seemed to him a large sum of money for the performance. Though in some doubt as to the care and transportation of the snakes, Kopeli and the younger snake priests were tempted to favor the scheme, through his avaricious father, Supela. When Wiki, chief of the related society of the Antelopes, heard the proposal, he became very angry and put his foot down, reading the young men of lax morals a severe lecture on their duties to their religion.

Even had this plan been carried out and had proved a death blow to the so-called pagan and heathenish rites of the Hopi, one would have regretted Kopeli's share in it. It is well known, too, that, at present, money will admit strangers to view the sacred rites of the Snake Dance, which formerly were kept inviolably secret. Evidently, the Hopi are deteriorating, when they barter their religion for silver; at no distant date, when the elder men are dead, the curious ceremonies of the Hopi will decay and disappear, and let us trust that a new and better light may be given them.

Some years ago Kopeli passed from the scene, and his brother, "Harry," took his place as Snake Chief.

Dr. J. Walter Fewkes has given an estimate of him as follows:

> Kopeli, the Snake chief at the Tusayan pueblo of Walpi, Arizona, died suddenly on January 2, 1899. He was the son of Saliko, the oldest woman of the Snake clan, which is one of the most influential as well as one of the most ancient in Tusayan. His father was Supela, one of the chiefs of the Patki, or Rain-cloud people, who came to Walpi from southern Arizona about the close of the seventeenth century. As chief of the Snake priests at Walpi in the last five presentations of the Snake dance at that pueblo, Kopeli has come to be one of the best known of all the Hopi Indians. He inherited his badge of office as Snake Chief from his uncle, and was the only chief in Tusayan who had a Snake *tiponi*. His predecessor in this duty was Nuvaiwinu, his uncle, who is still living, and who led the Snake priests in a single ceremony, after which it was found necessary for him to retire on account of his infirmities. At the celebration of the Snake dance in 1883, described by Bourke, Natciwa, an uncle of Kopeli, was Snake

chief. The oldest Snake chief of whom I can get any information was Murpi, a contemporary of Macali, the Antelope chief preceding Wiki. Kopeli was a relative on his mother's side of both these men. At the time of his death Kopeli was not far from twenty-five years of age; he had a strong, vigorous constitution, was of medium size, with an attractive face and dignified manner that won him many friends both among his own people and the Americans with whom he was brought in contact. He was a thoroughly reliable man, industrious and self-respecting. Although a conscientious chief of one of the most conservative priesthoods in Walpi, he was a zealous friend of the whites, and supported innovations introduced by them for the good of his people. He believed in the efficacy of the ceremonial rites of his ancestors and performed his duty as priest without shirking. As Mr. Thomas V. Keam, who knows the Walpi people better than any other white man, told the chiefs in council a few days after the Snake chief's death: "Kopeli was the best man of the Hopis." He was a *pac lolomai taka*, an excellent man, whose heart was good and whose speech was straight. To most Americans who are interested in the Hopi, Kopeli was simply the energetic chief in barbaric attire, who dashed into the Walpi plaza leading his Snake priests in the biennial Snake dance. This is one of the most striking episodes of the ceremony, and its dramatic effect is not equaled in any of the other pueblos. It was through Kopeli's influence that the Snake dance at Walpi was the largest and most striking of these weird ceremonies in the Hopi pueblos. Kopeli welcomed the educational movement and had two children in the school at

Keam's Canyon at the time of his death. He was buried among the rocks at the base of the Walpi mesa with simple ceremonies appropriate to a chief of his standing.[17]

Wiki, the genial, good-hearted old chief of the Antelope Society was one of the celebrities of Walpi. His very presence breathed benignity and his heart was full of kindness. The years were telling on Wiki, however, and the marks of age were becoming apparent in his wrinkled face. He gave one the impression of a Hopi gentleman of the old school, a survivor of the best of the past generation. Still, Wiki's form was not bent, nor his hair gray, and he led the Antelope dance with all the fire of youth. Stored away in his brain was a vast stock of ancient lore, of legend, myth, and song. Since he was quite deaf, his body of information was somewhat difficult of access.

Wiki maintained a certain dignity and attention to his own affairs, which commendable trait a few of the prominent Hopi possess. He has long been known by the scientific explorers who have visited Tusayan, and all who have come in contact with him speak highly of his good qualities.

Supela is in some respects the antithesis of Wiki. Wiki was identified with the Antelope Society or brotherhood, Supela assumed a part in everything. Great must be Supela's ability, since he is capable of counselling the numerous societies on any doubtful points in their rites and ceremonies. In fact, it seems that no observance in Walpi can get along without his aid, and even the farther towns often call upon him to assist them in delicate points involved in the conduct of their religious celebrations.

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[17] American Anthropologist (N. S.), Vol. I, Jan., 1899.

It is time we should have a pen picture of him. Short of stature, thick, gray hair hanging to his shoulders around a not unpleasant, mobile face. Nervous of movement, cordial, but occupied with pressing business, going somewhere, has scarcely time more than to ask a few curious questions, he seems to have the burden of Atlas on his shoulders. He resembles a promoter or a ward politician and he covers more ground in a day than Wiki could in a week.

If Supela seems head and front of everything religious in the summer, in the winter he plays a more prominent part in the Soyaluna, which is held at the last of December. Of this wonderful sun ceremony he is chief, and is as illustrious a personage to the Hopi as Santa Claus is to the fair-skinned children. At this time Supela is in his element and proud of himself to the last degree, for does he not regulate the rites that are to bring back the sun from his far winter wanderings?

Wiki was a man of action, coming forward to add power and dignity to that most astounding ceremony ever originated by human brain, the Snake Dance; Supela is a man of craft, a worker by formulas and incantations, but first and last a believer in getting all the silver he can in return for an insight into the mysteries — a thing that Wiki has never stooped to countenance.

There are first families in Tusayan. Saalako enjoys the distinction of being by birthright the chief snake priestess of all Hopiland. Hence Kopeli, her son, was chief priest of the powerful Snake Society in that metropolis of Tusayan, Walpi; while Supela, her husband, has no credit for his share in passing on the inheritance. At present, her son "Harry" is the Snake Chief in place of the beloved Kopeli.

Saalako is an old, wise woman. The mystery which hangs around her is born of her connection with the fearful rites of the Snake cult and her store of the knowledge which has been passed down from time immemorial "by living words from lips long dust." This connection carries her to distant pueblos to mix the "medicine" for the ceremonies, no one in the whole province being better versed in herbs and spells than she. One might meet her on this errand far out in the desert or among the rugged mesas on the trail to Oraibi, afoot, moving actively for a person apparently so frail. It is difficult to measure, especially in a limited time and short acquaintance, the respect and honor given by the Walpi people to Saalako and the Snake Chief's family. It would seem that there is a certain dignity and reserve natural to people of rank, although in the common associations the Hopi are quite democratic. In any case Saalako is free from the habit of begging, so often observed among her people, which is probably due to this dignity. It is very evident, however, that the vice of begging is becoming general among the Pueblos which have been most in contact with white people.

This sketch of Saalako would be incomplete without the mention of her chief shortcoming, inordinate curiosity. Apologists commend rather than excuse laudable curiosity, affirming it to be a desirable quality in an investigator. No doubt Saalako owes her acquaintance with nature to this class, but she is famous for curiosity in other minor matters. No visitor to Wapli escapes the ordeal of her questions, and popular account has it that very few happenings escape her notice. The Hopi of both sexes are most curious; Saalako has the trait in greater degree. The hoary error of attributing curiosity to woman alone has small countenance in Hopi. However, Saalako's curiosity is well meaning and harmless. It is only an expression of the infantile which blossoms in this peaceful and isolated people.

Saalako felt it her duty to give a name to one of the exploring party under the direction of Dr. Fewkes. After several days meditation, having tried and rejected several queer sounding appellations, she at last dubbed him *Kuktaimu*, briefly, "Investigator," and kindly offered to adopt him; the adoption, however, was not consummated. Kuktaimu owes his name to the ardor with which he collected plants, insects, and geological specimens, this not escaping the sharp eyes of Saalako.

This sketch is given as a tribute to a remarkable Hopi woman whose history is worthy of fuller presentation.

Intiwa was another celebrity whose acquaintance early ripened into a regard for his true worth. His was a modest personality; in him one saw the living presentment of the sages who guided the people before America dawned upon history. A striking instance that came to notice concerning him gives an interesting sidelight on Hopi customs.

One day Intiwa went down to his corn-field to see how the crops were getting on. As he was reaching under the drooping corn blades, feeling for the ripening ears, a rattlesnake struck him on the hand. He hurried home and applied all the remedies which Hopi medical knowledge could suggest, but got no relief. Some white visitors who happened to be near were called in and did all they could for the man, and finally, after much suffering, Intiwa recovered. Now comes the curious sequel of the snake bite. The Snake Fraternity decided that Intiwa, being specially favored by the bite of the snake, must of necessity belong to their order. Perhaps Intiwa was not impressed with the alleged favor of the snake. Still he took the initiation and became a full-fledged snake priest. This is the first record of such happening in Tusayan.

Beside the honor thus thrust upon him, Intiwa was the *Kachina* chief of Walpi, and thus an important man, the *impresario* and chief entertainer of his town, honored by the rain-bringing serpent, blessed with a large family, ample house and abundant food — gifts no doubt of the good fairy *Kachina*.

Several years ago Intiwa took a journey to the underworld across the deserts and down through the *sipapu*, or earth-navel, finding at last that wondrous land whence all people came out and where they finally must return, according to Hopi belief. Walpi will suffer the loss of his great knowledge; who knows but that he will emerge, and, sitting with the zealous *kachinas*, watch over the scene of his earthly triumphs?

The first meeting with the Hopi and with the Honani family was one of the most pleasurable experiences of the journey from Winslow to the Middle Mesa several years ago.

The party had toiled to the north for nearly three days through the brilliantly painted deserts that lie between the Little Colorado and the Hopi villages. The grotesque black buttes whose contours had changed so many times during the journey were left behind to the south and the gray cretaceous mesas began to narrow in on the dry washes, fringed with sage-green desert plants that characterize the region of the Hopi villages. Everyone felt that though many miles of loose sand still intervened, this was the home stretch to the goal. Far ahead on the plain several black dots were sighted, and with lively interest the party began to speculate as to what they might be. After a while it could be seen that a mounted party was coming, perhaps Navaho on first thought, likely Hopi on reflection. Soon they were decided to be a number of Hopi mounted on burros and ponies, and in a short time they were greeting the Americans with the fervor of a long-lost brother, their faces wreathed with smiles. These, then, were the tactiturn Indians of the story-books.

Honani, "the Badger," citizen of Shumopavi, was escorting his family on an outing of many miles after berries. Berries, such as they are, do grow in the desert, but they may be enjoyed only by those who never tasted any other variety. Honani's wife and her three pretty daughters were astride ponies, while the baby was securely fastened in his mother's blanket; the old grandfather and grandmother who bestrode burros made up the rest of the party, which formed a very picturesque group. The women asked for water, and Honani spoke the magic word *piba*, tobacco, followed by the word, *matchi*. These words one very soon finds are the indispensable preliminary to a "smoke talk" in Hopiland.

Honani's better half is no light weight. So thought her pony which, without warning, proceeded to lie down. Amidst the screaming and chattering, the stout lady managed to extricate herself, being much hampered by her prudence in tying her blanket to the horn of the saddle. When all were quieted and the pony soundly thumped, they started again on their way berrying.

Honani is quite a prominent man and was one time chief of his pueblo. He is one of the very few Hopi who have made the grand tour to Washington — *Wasintona*, as they call it. He has a farm in the country, where he lives in summer. The vagrant Navaho who encroach on his premises are the bane of his life, and when none of this tribe is near he wishes them all sorts of unpleasant things. Honani himself is no saint; from all accounts, it is advisable to leave nothing loose while he is around. His wife has a pleasant, matronly face that one cannot help admiring. She is a skillful basket-maker and keeps her house neat and clean, which is more than can be said of her contemporaries.

There is a good deal of feeling, mingled with a large element of jealousy, against Honani in the minds of his fellow villagers, because of his friendliness toward the white man and his stand in favor of educating the children in the schools provided by the Government. At Zuñi, through some pretext or other, Honani would be hung as a wizard, whereas the amicable Hopi merely ignore him for a while.

On another occasion, while the party was encamped in a sheltered valley of the Middle Mesa, the "Honanis" came visiting. It was about supper time; the connection of the time and visit needs no explanation. Among the scanty utensils of the party two cans of similar shape contained respectively salt and sugar. Honani's wife liberally sweetened her coffee and gave the baby a taste. In a moment his hitherto placid face assumed the contortions of a Hindu idol, and he squirmed and yelled. His mother, not knowing what was the matter, shook him and punched his fat stomach to find out. Then she took a sip of coffee and screamed out, "*Ingiwa!*" (salt). Her reproachful look seemed to convey the idea that someone had designs on the baby. A few words of explanation soon put her mind at rest on that score, and smiles were again restored. When she heard that several of the party had been at times sufferers from those same malicious salt and sugar boxes, she enjoyed the joke hugely; fellow sufferers are always appreciated the world over.

There is at least one open and above-board infidel at the East Mesa. Chakwaina is his name, and he is a Tewa of Hano. The old nature faith in this pueblo does not show many signs of weakening, so that were Chakwaina less in possessions and in consequent influence, he might have been brought to book long ago for his sins. Chakwaina says "the *kachinas* are no good." Perhaps the poor people who so depend on the crops for their existence believe devoutly in the gift-bearing *kachinas* from ignorance or selfish motives, while *Chakwaina*, who has sheep, flour, and money, feels independent of any spiritual aids; this is the old story. Chakwaina undoubtedly feels able to take care of himself, for no one has succeeded in getting ahead of him at a bargain. Of course when a pair of sheep shears or a stone is too frequently found in a bag of wool after weighing, people will suspect cheating. It is well to keep watch on Chakwaina!

On the other hand, Chakwaina was one of the first to move down permanently from the mesa when the Government offered inducements to the Hopi to descend from their eyrie. He has always been friendly to the white people; he aided in the establishment of a day school at the "Sun Spring," and used his influence to persuade the people to send pupils to the school at Keam's Canyon. He has also traveled much, adding Spanish, Navaho, and a smattering of "American" to his Hopi-Tewan repertory of languages, for the Tewa, besides being the most progressive inhabitants of Tusayan, are the best linguists. This is due to the fact that the people of the little town of Hano have preserved their own language, and being within a stone-throw of Walpi, must also know Hopi. Hence the step toward learning other tongues is made easier.

Chakwaina has his house near Ishba, or "wolf spring," in very picturesque surroundings. Below, in the wash, are his cornfields and melon patches, showing skillful engineering in diverting the water on the arable ground by means of dams and wings. Here he and his faithful adjutant, "Tom Sawyer," the Paiute, put in many a laborious hour, the latter waging deadly warfare on the obnoxious prairie dogs whose fate is to be eaten if caught.

Chakwaina is disposed to poke fun at the scientific men who come to Tusayan to study the ways of the Hopi. He has a remarkable laugh, and his mimicry of the Snake Dance is one of the most amusing things to be seen in Hopiland. His object is to ridicule all parties by making himself ridiculous. It is evident that Chakwaina has not the accustomed contentment of the Hopi. Having denied the first article of faith in the *kachinas* and having received nothing higher in return, he stands in the unhappy position of all unbelievers of whatever race or time.

A portrait gallery of the celebrities of Tusayan would not be complete without Mungwe, or, as his name is translated, "El Capitan," "Cap" for short; but his name is properly *Mongwe*, "the owl." "Cap" is a Tewa whose ancestors were invited long ago to come from the Rio Grande and cast their lot with the Hopi on the Walpi Mesa. Here their descendants still dwell in the village of Hano, preserving the language and customs transplanted from the "Great River of the North." "Cap" is one of the most energetic and capable Indians in all Hopiland. Wiry in figure, alert of movement, loquacious, quick of comprehension, trustworthy and experienced, he is quite in advance of the large majority of his contemporaries. Long ago he abandoned the inconvenient mesa; his farm-house with its red roof can be seen among his cornfields far out in the broad valley to the southeast of Walpi. The men who work for Mongwe seem to be pervaded with his energy, and there is no doubt that he is regarded by them as a captain of industry, for he allows no laggards to eat his bread. In the line of teaming, Cap excels. No matter how long or bad the road or how heavy the load, his staunch little ponies will carry it through. A rickety wagon and providence-tempting harness seem to prove no bar to any attempt, where money is to be earned. Hence, though a number of the Hopi possess wagons through the generosity of the Government, Mongwe gets most of the hauling.

Our friend, alas, is not modest in the announcement of his worth. It is a subject on which his tongue works like a spinning-jenny. At night after the cares of the day, sitting around the camp-fire with ample bread, unlimited rashers of bacon, and a circle of hearers, Cap eats and talks in the plural. The word plural calls for a sentence or two in reference to Cap's wives. Not that he has ever defied Hopi customs to the extent of having more than one wife at a time, but the list of the ones who have disagreed with him, if completely up to date, would be interesting reading. From what can be gleaned, in this Utopian land, women have the right of divorce. The relationship of Cap's children, it will be seen, is very assorted. To hazard a guess, Cap's matrimonial ventures are marred by his general "fussiness."

Aside from this, Mongwe is an honor to Hopiland. His success has drawn to him a party of the young generation who are afflicted with the universal desire for *shiba* (silver), and if they are inspired with Mongwe's example it will be a benefit to Tusayan, the Hopi body politic, which needs active young blood to overcome the centuries of inertion.

Another vivacious Hopi is Wupa, whose name means "great." The fatherly interest which Wupa takes in the white man was sufficient recommendation to attach him to our camp as man-of-all-work, and a closer acquaintance brought to view other sides of his character in which the gay features far outnumber the grave. Faithful to the extent of his lights, though averse to steady work, he managed to earn his bread and a small stipend, but considering the entertainment he furnished, his pay should have been equal to that of the end-man in a minstrel show.

So it happens that the memories of Wupa bring forth a flood of pleasing recollections. The merriest of all that merry race of laughing, joking, singing Hopi, his presence around the camp-fire diffused an atmosphere of cheerfulness which does not always prevail amidst the discomforts of roughing-it in the desert. Short of stature and bandy-legged, possessed of a headpiece wrinkled and quizzical, one cannot by any stretch of the imagination make him out handsome; but he is so loquacious, witty, and full of tricks that it is not possible to doubt his fitness for the position of king's jester. Wupa has his moods, though. Sometimes an air of preternatural gravity and unspeakable wisdom enwraps him; very close behind this mask, for such it is, lurks a mirth-provoking skit and boisterous laugh. Like other humorists Wupa has the fatality of being most amusing when serious. Still, in the iridescent interworld between smiles and tears Wupa has a romantic and sad history.

The *dramatis personae* woven into this history are white men, Mexicans, Zuñi Indians, and his fellow Hopi. The first misfortune that befell Wupa was to be born at the time when famine harried the Peaceful People in their seven villages to the north of the Little Colorado. Famine is an old story with the Hopi. For two years no rain had fallen, and neither the Snake nor the Flute dance availed to bring the good will of their gods. The sacredly reserved corn laid up to tide over a bad year had been eaten, and the Hopi were in distress. They gathered the wild plants that seem to be independent of drought, and tried to keep soul and body together till the rain-clouds should again sweep across the Painted Desert; but many were those who never saw the time of ripe corn. Many deserted the pueblos and cast their lot among the Navaho shepherds, the Havasupai of Cataract Canyon, and other more fortunate tribes of friendly people.

So it happened that Wupa's mother with her hungry babe took the well-known trail to Zuñi 100 miles away, and nerved with the strength of desperation at last reached the pueblo under "Corn Mountain." Indian philanthropy rarely extends outside the circle of relatives, and the Zuñi had no mind to give corn to the poor Hopi woman beyond enough to keep her from starving. But little Wupa was worth a bushel of the precious ears, and for that amount he was exchanged, becoming, without being consulted, a Zuñi, while his mother trudged back to Hopiland with food for her starving kinsfolk, feeling, no doubt, little sorrow at the loss of her babe, so great is the levelling power of famine and misfortune. There are usually strays at all Indian villages, and thus the presence of the little Hopi stranger passed without notice. When the crops were assured in the fields of the famine-stricken Hopi, they ceased coming to Zuñi, and Wupa seems to have been unclaimed and forgotten.

When he was five or six, the Zuñi in turn sold him to some Mexicans, and the next account there is of him he was living at Albuquerque, a stout young *peon*, with cropped hair, a devout Catholic, speaking Castilian after the fashion of the "Greasers." Wupa thus became, to all intents and purposes, a Mexican, and perhaps had lost sight of his origin. Neither is the transition from Indian to Mexican at all difficult or incongruous. Few Americans realize the new problem of the population that came to us through the treaty of Guadalupe-Hidalgo, the clannish, unprogressive foreigners who were made American citizens without being consulted. It must be said, however, that the Anglo-Saxon prejudice of the Latin leaves quite out of sight the good qualities of the Mexican; it rarely considers that his ignorance is due largely to lack of advantages during several centuries, and that the strain of Indian blood has not helped matters. According to the white man's way of looking at it, this listless race, seemingly satisfied to be *peons* in the land of the free, is inferior and doubtfully classed with the Indians, with the doubt in the latter's favor.

Wupa quickly picked up the language and associations of his accidental compatriots, and soon the Padre rejoiced in another brand plucked from the burning. His next step was to find a señorita and to marry her, and after the semi-barbarous wedding his woes really begin. In explanation of the description given of Wupa as he appears at present, it may be fair to say that twenty years off his age would leave him a passably young man, but even with this gloss, one cannot form a very high estimate of the señorita's taste.

During the period of Wupa's exile, one knowing the Hopi would be curious to find out how he bore himself and whether an inherited love for the freedom of the desert was ever shown. Perhaps the early age at which he began kicking about the world, and his varied experiences, completely lost him to the feeling of his kith and kin. Civilization is irksome to the desert-bred Hopi and he soon becomes as homesick for his wind-swept mesas as the Eskimo for his land of ice or the Bedouin for the Sahara. These questions may have a suggested answer in the home-coming of Wupa, for he returned again to his native pueblo after one of the most varied and remarkable series of adventures that ever filled out a true story. The events that led up to the home-coming of Wupa form not the least interesting episodes in his history and occurred along the old Santa Fé Trail, immortalized by Josiah Gregg. The railroad builders had labored across the plains, up the steep slopes of the Rockies, following the famous trail to old Santa Fé, leaving behind two bands of steel. Blasting, cutting, filling, and bridging, they were advancing toward quiet Albuquerque on the lazy Rio Grande, and the news of these activities stirred that ancient town from center to circumference.

The dwellers in the Southwest are brought squarely up against the "proposition," as they call it, that one must work if he would live. The Mexicans, though reputed lazy, are on the contrary always anxious to work for wages, and the motley and wicked railroad camp had a large population of the dark-skinned believers in Montezuma recruited from long distances.

Wupa joined with the Albuquerque contingent. What his duties were it is not difficult to imagine; his skill in "rustling" wood and water in later years gives a good clue as to his work on the railroad. As messenger and general utility boy where steady labor was not required, he no doubt proved useful and picked up sundry pieces of silver for his señora.

Perhaps not the least of his services lay in his unfailing good-humor expressed in cheering songs with which he softened the trials of railroad pioneering through that almost desert country.

The picturesque wickedness of the westward traveling construction camp with its fringe of saloons, gambling hells, and camp followers seems never to have taken Wupa in its snares. Of shooting irons and drunken men he had the inborn terror shown always by the Hopi, a feeling still kept alive among them by that later incursion into New Mexico and Arizona, the Texas cowboy. There was no fight in Wupa; the most that could be gotten out of him was a disarming laugh and a disappearance, as soon as that move could be made. Picturesque as was the construction camp, the stern side of life came very near, and the wonderful hues of the landscape were but mockery to the tired and thirsty men, who prepared the Santa Fé Trail for the iron horse. Poor food, worse water, alkali dust, parching heat and chilly nights of summer and the severity of winter were living realities; there were health and vigor in the air of the mountains and elevated plateaus, though food and appetite did not always strike a balance of compensation.

Wupa moved along with the camp, little realizing the meaning of the struggle with the drifting sand, the rocky canyons, and the dry rivers that became torrents and in an hour swept away the work of a month, burying ties and rails in the limbo of boiling sand. By night he rolled himself in his blanket and after his orisons slept under the brilliant stars, while his fellow Mexicans snored in strangely assorted heaps among the sage-clumps.

The rails came down the treacherous Puerco and along the banks of the Little Colorado. To the north the dark blue Hopi Domes reared their fantastic summits, signifying nothing to this expatriated Indian, though the mother who bore him and sold him into bondage waited for him there. To the west the San Francisco peaks stood always in view, but Wupa was ignorant of the traditions of his tribe that cluster around them. The rails left the river, stretched across a flat country, and halted at the edge of a tremendous chasm, whose presence could not be suspected until it yawned beneath the feet. Here the camp halted for months, while a spider's web of steel was spun across the Devil's Canyon.

One day several Hopi came to the camp, and after staring, open-mouthed, at the labors of the white man, wandered about, as if looking for someone. Soon they ran across Wupa, and the leader spoke to him in Hopi language to this effect: "You are a Hopi; we come to bring you to your house." A doubtful shake of the head from Wupa, who did not understand the tongue of his people.

"Yes, come; they sit up there waiting for you." This ought to have stirred in Wupa a desire to go at once, but he "no sabe." Finally, after parleying in a mixture of Hopi, Zuñi, and Spanish, pieced out here and there with sign language, they persuaded him to desert the camp and set out with them for his native town a hundred miles to the north.

The home-coming of Wupa was a great affair, and his reintroduction to his mother was touching, for the Hopi are more demonstrative than other Indians. The event must have been a nine days' wonder in the gossipy pueblo of Walpi. His education was taken up at once with the intention of eradicating the evil effects of Mexican training, especially on the side of his religious instruction. If the grave priests are satisfied with their labors in helping Wupa to begin anew as a Hopi, an outsider would consider the results as rather mixed. To this day Wupa is taunted with being a Mexican; these taunts he answers with silence and an air of superiority he knows so well how to assume; how, indeed, can they know what he has gone through in his remarkable experiences?

While Wupa was willing to desert and become a pagan, as were his ancestors, exchanging the quaint cathedral of Albuquerque with its figures of saints and grewsome Corpus Cristi in a glass case for a dimly lighted room underground and familiarity with rattlesnakes, his señora had other ideas. Wupa mourned that his señora would not cast her lot with the "Peaceful People" of Tusayan; but money was scarce and the distance too great for a personal interview; the letters written by a laborious Mexican scribe were productive of no results. Though the señora might have done worse, who will blame her? During the years that passed one might think that Wupa would have forgotten his wife on the Rio Grande, but it was always the dream of his life to bring her to him at Walpi. It was pathetic to hear his schemes and to see the way in which he treasured letters from her written in the scrawl of the town scribe and addressed to Señor Don José Padilla, which is Wupa's high-sounding Castilian name. His constancy seemed admirable, for he did not take an Indian wife, granting that he could have secured one of the Hopi belles for spouse.

Still, with all this care Wupa was light-hearted, caroled with abandon Mexican or Hopi songs, or intoned solemn church music. Though a much-traveled man, he remained at his native place, the mainstay of his old mother who sold him aforetime, his father long since having traveled to the underworld. Hopi-Mexican, Pagan-Christian, he still occupies a somewhat anomalous position among his people, who have consistently hated the proud proselyting Spaniards during the more than two hundred years since they threw the "long gowns" from the rocky mesa.

About the camp Wupa was very useful. Mounted on his agile *burro*, a sight well worth seeing, he brought the mail from Keam's Canyon. He collected wood and water, indulging in many a song and exclamation. The cook especially seemed to him a fit subject of jest. The cook was really an adept at snoring and the still watches of the desert night were often too vocal. Wupa used to sing out "*Dawa yamu, Kook!*" "Daybreak, cook!" followed by a fine imitation of snoring which the subject of the jest did not enjoy. But Wupa was at his best when prospecting an ancient ruin to locate the most promising place to dig for relics. At such times his gravity and wisdom fairly bulged out. His advice was clearly and forcibly given, but the nemesis of humorists followed him, and no one ever thought of taking him seriously. And he never seemed disappointed. Wupa is a true humorist, without bitterness, one to be laughed at and loved. He was almost tearful at parting and made many protestations of friendship, at the same time presenting two watermelons from his field. These melons were unripe, according to un-Hopi standards, but were received in the spirit in which they were given, and later some natives met on the road to Keam's Canyon had an unexpected feast.

The romance of Wupa's devotion to his Mexican señora and the fine flavor of constancy he showed toward her received a rude shattering the year after the commencement of this account. He took unto himself a Hopi helpmeet, — an albino, — and a whimsical pair they looked when they came to the Snake Dance the following summer.

This step of Wupa's, in view of the repeated confidences that Hopi maidens were not to his taste any-how, was a surprise to his friends. His choice of an albino for a mate clears him to some extent, as no doubt he believes her to be as near an approach to a white woman as a Hopi may hope to reach. However, his friends wish him well and feel like saying, "Long live Wupa, 'great' by name and truly great in quip, gibe, and gest by nature."

A visit to the East Mesa cannot be regarded as complete without an interview with Toby. Usually no one leaves this portion of Tusayan without seeing him. His name, which means "the fly," exactly fits Toby, who has all the pertinacity of that well-known insect.

Several years ago, however, the writer failed to meet Toby and remained in complete ignorance of his great possibilities, except by hearsay, until the next season. Then when the party wound its way up to the first bench of the mesa under the dizzy cliffs and camped on a level spot near a peach tree on land which the Tewa have held for two centuries, Toby was there as a reception committee.

His "how do" was rather startling and unexpected. After the routine of handshaking, Toby remarked, "This my lan'," and pointing to the antique tree long past fruit-bearing, "This my peach tlee." Proud of his possessions he squatted on the ground and drew a plan of his lan' and inquired as he pointed out the locations of his crops, "Have you seen my con [corn]? Have you seen my beanzes?" Suddenly an idea struck him. He approached the leader of the party and put these questions to him, "You good man, uneshtan', you honesht man?" Then as if satisfied, he turned to another of the party and said, "You handsome man; you beautiful man," and it was not long before Toby had a packet of coveted smoking tobacco, although from the unkempt appearance of the explorers, his laudations were base flattery.

It was plain that Toby was desirous of airing his remarkable English, of which he is very proud, and also of paving the way to sundry small gratuities. These intentions of the Hopi are quite as apparent as that of the little child who says, "Ducky likes sweet cakes." Toby was asked to bring in a burro load of wood for cooking purposes, but with great suavity he explained that on this day the Snake priests hunted in the East world-quarter, and according to custom no one must work in that direction. On account of these conscientious scruples of Toby's, the venerable peach tree was requisitioned for enough dead branches till such time as he should sally forth with his burros for cedar billets.

The day before the Antelope Dance Toby came down to the camp on important business chewing a moccasin sole which he was stitching. He broached the subject by mysteriously saying, "Plenty Navaho come to see Snake Dance. Navaho velly bad, steal evelything." (This in a furtive way, because the Hopi are afraid of the Navaho.) "Me stay, watch camp; you go see dance; Navaho bad man." It is well to say that after Toby's watchful care at the camp all the baking powder and matches were missing. Few Hopi are proof against these articles, especially before a feast, and Toby is evidently no exception. He fought shy of camp after that, no doubt fearing a "rounding up." Perhaps, however, Toby appropriated the matches and baking powder as rent for his "lan'."

Toby is father of a large family. When asked to give a census, he counted on his fingers, "Boy, girl; boy, girl; boy," then with great enthusiasm, "Babee!" Toby's command of English is due to the fact that he was the prize pupil of a teacher at the Keam's Canyon School some years ago. He delights to show how he can spell. If no one should ask him to exhibit this accomplishment, he usually brings up the subject by asking, for instance, "How you spell box?" pronounced "boxsh." If ignorance is professed, Toby spells b-o-x, and follows with *dog, cat, man,* and other words of one syllable, and proudly finishes by writing his own name in the sand.

Toby thus furnishes great amusement to sojourners at Walpi and also leaves the suspicion in the minds of most that he is a trifle "light in the upper story."

Another character is "Tom Sawyer," a Paiute Indian who lives with the Peaceful People at the East Mesa. As handsome as a Japanese grotesque mask and almost as taciturn, his gravity seems to have telescoped his squat figure and multiplied the wrinkles in his face, half hidden by his lank, grizzled hair.

Keen, shrewd eyes has he and very evasive. Tom, however, is not "bad" in the Arizona sense, nor will his make-up allow him to be altogether good. He is, therefore, a man, for which this sketch is to be congratulated. While Tom's early history may never be known to the world, his step in leaving the Paiute for the Hopi is very much in his favor. Here he fell naturally in his place as serf to Chakwaina, of whom something has already been said.

Tom became washerman for the Fewkes expedition while the party sojourned at Walpi. Percy, who prides himself on his faultless "American," held the position in former years, but having gotten a few dollars ahead, felt above work at this time. It must be said that Tom is an excellent laundryman. The idiosyncrasies of wayworn civilized garb do not stump him; in fact, he is "ol' clo'es man" for the whole East Mesa. His many quests for discarded garments to Winslow, Holbrook, and other points on the railroad are always successful. The people of Winslow affirm that wearing apparel often disappears from clotheslines and other exposed situations coincidently with the visits of Hopi, who clear the town of rags as the winds do of loose paper. When the physician of the place lost a pair of overshoes which were reposing on the back kitchen steps, he remembered too late that a Hopi had gone down the alley sometime before. The disappearance of the overshoes can scarcely arouse as much wonder as their presence and utility in arid, dusty Winslow. No doubt Tom has caused many of these mysterious disappearances and the spoils borne northward on his patient burros have promoted a dressed-up feeling among the Hopi braves.

It has not yet been found out whether Tom gave an exhibition of artistic lying or was telling the truth about the following matter. Tom was starting on one of his periodical clothes raids to Winslow, and he was asked to bring back a can of plaster. About a week later Tom returned with the following laconic tale, "Snake bite burro, burro die; me take can back, give to man."

At the time it was thought that Tom had overloaded his burro with old clothes and had invented the story. There is much to be said on Indian invention. If Tom is living he is still an active citizen of Hopiland.

XII

THE ANCIENT PEOPLE

The Southwest has always been a storied land to its native dwellers. Mountain profile, sweep of plain, carved-out mesa, deep canyon, cave, lava stream, level lake bed, painted desert, river shore, spring and forest are theirs in intimacy, and around them have gathered legends which are bits of ancient history, together with multitude of myths of nature deities reaching back into the misty beginning.

Deep is this intimacy in the practical affairs of life, teaching the way to the salt, the place of the springs, the range of the game, the nest of the honey bee, the home of the useful plants, the quarry of the prized stones, and the beds of clay for pottery, for the desert is home and there is no thing hidden from keen eyes. From far off, too, came in trade shells from the Pacific, feathers from Mexico, buffalo pelts from the Plains, and, perhaps, pipestone from Minnesota, so that the land of sunshine was not so isolated as one might think, and its resources fed, clothed, and ministered to the esthetic and religious needs of numerous tribes of men from the old days to the present.

The white men who tracked across the vast stretches of the "Great American Desert" no doubt saw ruined towns sown over the waste, and perhaps believed them lost to history, little suspecting that within reach lived dusky-hued men to whom these potsherd-strewn mounds and crumbling walls were no sealed book. The newer explorers have drawn the old-world stories from the lips of living traditionists, and by their friendly aid have gathered the clues which, when joined, will throw a flood of light on the wanderings of the ancient people. Through them it has been learned that each pueblo preserves with faithful care the history of its beginnings and the wanderings of its clans. This at proper times the old men repeat and the story often takes a poetical form chanted with great effect in the ceremonies. As an example of these interesting myths, one should read the Zuñi Ritual of Creation, that Saga of the Americans which reveals a beauty and depth of thought and form surprising to those who have a limited view of the ability of the Indian.

One thing is settled in the minds of the Pueblo dwellers. In the beginning all the people lived in the seven-story cave of the underworld, whence they climbed toward the light and after reaching the surface of the earth, migrated, led by supernatural beings. Where the mythical underworld adventures leave off begins a real account, telling the wanderings of the clans and the laying of the foundations of the multitudinous ruins of the Pueblo region. It may not be possible to connect all the ruinous villages with the migrations of the present Indians, for there is room enough in this vast country to have sunk into oblivion other peoples and languages, as the vanished Piro, who passed away since the white strangers came to Cibola, but much may be done to gather the glittering threads before they slip from sight.

The journeyings and campings of the ancient people becomes intelligible when the make-up of the present pueblos is known. One finds that every pueblo consists of clans which are larger families of blood relations having certain duties and responsibilities together; a name, such as the bear, cloud, or century plant; certain rites and ceremonies to the beings; clan officers and customs amounting to laws, and a history preserved in the minds of the members. So it will be seen that a tribe among the house-builders is composed of a number of smaller tribes, called clans, each complete and able to take care of itself, forming the present villages. Often in the early days a powerful clan migrated long distances and left members in many different places, because clan law forbids marriage within the clan, and the man must live with the people of his wife. In these migrations portions of a clan would break off and cast their lot with other villages, and often several clans traveled in company, building their pueblos near one another, and thus came the groups of ruins so common in the Southwest.

For this reason, all the present villages have received swarms from other hives and have sent out in turn swarms from the home village, during their slow migrations around the compass. The habits of the ancient people thus led to a constant flux and reflux in the currents of life in the Southwest and in spite of their substantial houses and works costly of labor the Pueblo Indians were as migratory as the tent-dwellers of the Plains, though they moved more slowly. Their many-celled villages on mesas or on the banks of streams, in the cliffs of the profound canyons, dug in the soft rocks or built in the lava caves, were but camps of the wanderers, to be abandoned sooner or later, leaving the dead to the ministrations of the drifting sand.

Nor with the coming of the white people did the wandering cease. There were Seven Cities of Cibola ing the subsequent stretch of time, these seven towns were fused into the Pueblo of Zuñi and again came a dispersal and from this great pueblo formed the small summer villages of Nutria, Pescado, and Ojo Caliente. A human swarm built Laguna two centuries ago to swarm again other times. Acoma is mistress of Acomita; Isleta has a namesake on an island in the Rio Grande near El Paso, and in Tusayan the farming pueblo of Moenkapi Hotavila and Ushtioki in the plains in front of Walpi, are late additions. Thus, in times of peace, these hamlets spring up, each having the possibilities of becoming large settlements, and in times of danger they come together to better withstand the common enemy, for the union born of need and strengthened by the coming of wily foes was inculcated by former experiences. But these unions were never close, even between the clans when they forsook their small community houses and came together forming tribes. Between tribes of the same language there were but the faintest traces of combinations for mutual welfare.

Perhaps about the time of the landfall of Columbus a group of tribes began to push their way into the region of the house-builders.[18] These tribes were related and had crept down from the north, where now their kinsfolk live under the Arctic Circle. It was many years before the Apache and Navaho were strong enough to try conclusions with the settled peoples, but when they had gathered to themselves the lawless from many tribes, then began terrible chapters of history which only recently have been written to a finis. Wherever these conscienceless savages ranged were carnage and destruction. The habits of the house-builders changed and the ruins on high mesas and the lookouts on every hill tell plainly how they sought defence from the scouting enemy. The large towns in the Salinas of Manzano passed into oblivion under the attacks of the Apache and began a mythical career as the "Gran Quivira" of treasure hunters. Great was the devastation of which the complete story may never be told, yet nearly every tribe preserves legends of bloody contacts with the Navaho and Apache.

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[18] The Early Navaho and Apache. F. W. Hodge, Amer. Anthropologist, July, 1895.

Still at an early period the Navaho became changed from a fierce warrior to a comparatively peaceful herdsman, subject to the maddening vagaries of that most whimsical of gentle creatures, the sheep. Early in the Spanish colonial period the Navaho preyed on the flocks of sheep of the Rio Grande pueblos, where they had been brought by the Conquistadores, and by that act his destiny was altered. Later on, instead of hunting the scalps of his fellow creatures, his flint knife became more useful in removing the wool from the backs of his charges; he thus became famous as a blanket weaver, and soon excelled his teachers in that peaceful art.

Other visitors and neighbors of the Pueblo people were almost as undersirable as the Apache and Navaho. The Comanche of the Plains brought ruin to many a clan by his forays, and his brother, the Ute, from the mountains to the north, was a dangerous enemy to encounter and at many times in the past attacked the villages of the Hopi. To the west were the Yuma and Mohave, to the south were the Pima, extending into Mexico, and in the Cataract Canyon of the Colorado lived the Havasupai deep in the earth. These have been the neighbors of the Pueblos since recorded history began. Also the tent dwellers of the buffalo plains sometimes visited the Pueblos, tracking up the Canadian, and perhaps other neighbors there were, now vanished beyond resurrection or legend or the spade of the archeologist into the dust of the wind-swept plains.

Besides the harrying of enemies of the wandering sort, there were quarrels among the sedentary tribes and the old-fashioned way of fighting it out according to Indian methods left many a village desolate. For this reason the villages were often built on mesas before the ancient enemies of their occupants began their range of the Southwest, and hostilities were carried on against brothers located near the corn lands and life-giving springs of the Pueblo country.

In the ancient days, as at present, the secret of the distribution of Pueblo men was the distribution of water. It seems that in the vast expanse embraced in the Pueblo region every spring has been visited by the Indians, since whoever would live must know where there is water. The chief springs near the villages they dug out and walled up and built steps or a graded way down to the water, and often these works represent great labor. Likewise, the irrigation canals and reservoirs of southern Arizona show what he could do and surprise the moderns. One soon sees that there is not a spring near the present villages that does not receive its offerings of painted sticks adorned with feathers, as prayers to the givers of water. These simple-hearted folk in the toils of drought seem to have all their ceremonies to bring rain, and there is nothing else quite as important in their thoughts. In the same way the Southwest has made the settlers workers in stone and clay, for Nature has withheld the precious wood. Few other parts of the world show so clear an instance of the compelling power of the surroundings on the customs of a people.

Why or how the pueblo builders came into this inhospitable region no one may decide. The great plateau extending from Fremont's Peak to the Isthmus of Tehuantepec, with its varied scenery, its plants and animals, and its human occupants is replete with interesting problems of the Old New World. Perhaps as the people crowded from the North along the Rockies toward the fertile lands of Mexico, some weaker tribes were thrust into the embrace of the desert and remained to work out their destiny. It would appear that no tribe could adopt the land as a home through free choice, because the sparseness of the arid country must make living a desperate struggle to those who had not the precious seeds of corn.

Corn is the mother of the Pueblos, ancient and modern. Around it the Indian's whole existence centers, and the prevalent prayers for rain have corn as the motive, for corn is life. Given corn and rain or flowing water, even in small amount, and the Indian has no fear of hard times, but prospers and multiplies in the sanitorium where his lot is cast.

If we travel backward into the Ancient Southwest we must leave behind many things that came to the people since the Spaniards sallied from Mexico to the new land of wonders. Sheep, goats, chickens, burros, horses, cattle there are none, and the children of the sun have no domestic animal except the turkey. The coyote-like dog haunted the pueblos, but his ancient enemy, the cat, was not there to dispute with him. No peaches or apricots were on the bill of fare, and the desert must be scoured for small berries and the fruit of the yucca and prickly-pear. Corn, beans, melons, and squashes there were, but wheat, oats, and alfalfa came from other hands. What would be the deprivation if sugar, coffee, flour, and baking powder were cut off from the present Indians. The ancients had none, nor were the useful vessels of tin and iron for cooking dreamed of. The agave of the South furnished a sweet in the roasted leaves, which took the place of sugar and went far and wide by early commerce. Tobacco always grew wild around the pueblos, but the ancients never knew the fascination of the modern leaf.

Before the trader's cotton stuffs, were those of native cotton and before woolen stuffs there were warm blankets of strips of rabbit fur interwoven with cord, feather garments, mats of yucca, and blankets of mountain goat and buffalo wool, with girdles and stockings of the same textile. Perhaps more in use than these for clothing were the tanned skins of the elk, deer, and antelope, ornamented with native colors before aniline dyes came into existence. Buffalo skins were a part of the belongings of the ancients secured through trade with the people of the plains. There were sandals of plaited yucca and moccasins of turkey feathers. For jewelry there were seeds of the pine, shells, beads, and ornaments of turquoise and colored stones, quite enough to satisfy the love of ornament and quite suitable to the dusky skins of the Indians, as anyone may verify, if he will travel to the pueblos.

About the houses every vestige of metal and glass is absent. The windows may have been glazed with irregular plates of selenite, and the marks of fire and the rude stone axe are upon the beams. Instead of the gun, curved clubs, the bow, and stone-tipped arrows hang from the rafters with the lance thrown by the atlatl. In the corner stands a hoe of stone and a digging stick; pottery, gourds, and basketry are the sole utensils, the knife is a chipped stone blade set with pine gum in a wooden handle, and the horns of the mountain sheep are formed into spoons.

The rooms are smoky and dark, since the chimney is not yet, and the fire on the floor must be nursed, for, when it goes out, it must be rekindled by the friction of two pieces of wood or borrowed from a neighbor in the manner of primitive times, not yet forgotten among the advanced sharers of civilization. Much might be added to this picture of the early life of the Pueblos, and the exploration of the ruins will tell us yet more to excite our interest and admiration.

Among the inhabited Hopi pueblos are many seats of the ancient people now become mounds or fallen walls and their memory a tradition. There were four mission churches; hardly a vestige of them remains, and a few of the carved beams support the roofs of pagan kivas. This bears strong testimony to the completeness of the weeding out of the foreign missions by the Hopi more than two centuries ago. The Hopi have always been free and independent, even when the search for gold by the Conquistadores had been turned to the search for souls to the subjugation of most of the other Pueblos in the Southwest.

Several of the interesting ruins in Tusayan have been explored. Sikyatki, or "Yellow House," lying on the sand hills four miles east of Walpi, has yielded many strange and beautiful relics of pottery and stone, as has Awatobi, a large town on a mesa ten miles southeast of Walpi, destroyed about the year 1700 by the other villagers. Here may be traced the walls of the mission of San Bernardino de Awatobi, a large church built of blocks of adobe mixed with straw. The church stood on the mesa commanding a superb view of the lava buttes to the south and must have been in its time an imposing building. The old town of Kisakobi, near Walpi, has yielded relics in profusion of a later period than the sites mentioned, and it is here that we must look for the arts of the Hopi just before they came into the light of history.

The prevalence of ruins around the Hopi mesas is in keeping with the movements of the tribes in the Pueblo region. Of the seven Hopi towns, Oraibi is the only one now on the site it occupied when the Spaniards came to Tusayan.

Not long ago, according to Hopi traditionists, some clans withdrew from Tusayan and rebuilt cliff-houses in the Canyon de Chelly, where before some of the clans that finally settled in Tusayan lived for a time.

Without doubt the connection between the early Hopi clans and the people who lived in the cliff-dwellings was close at a former period, and there is reason to believe that the older clans who are said to have come in from the North possessed the black-and-white pottery and the arts of the cliff-dwellers. Other clans coming from the South must have worked considerable changes in Hopi arts. While the southern clans brought yellow pottery, it remained for the great influx of peoples from the Rio Grande to introduce the artistic ware with complicated symbolic decoration that rendered the Tusayan ceramics superior to all others in northern America.

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